

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: SM J. Lee Examiner #: 76060 Date: 3-22-2006
 Art Unit: 1752 Phone Number 302-1333 Serial Number: 101743.441
 Mail Box and Bldg/Room Location: 9D60 Results Format Preferred (circle): PAPER DISK E-MAIL
 (Rem)

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Pr. Acc. Bib

Inventors (please provide full names): _____

Earliest Priority Filing Date: _____

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Please search for the invention of cl. #1

SCIENTIFIC REFERENCE BR
 Sci. & Tech. Info. Ctr.

MAR 23

Pat. & T M Office

STAFF USE ONLY

	Type of Search	Vendors and cost where applicable
Searcher: <u>2/H</u>	NA Sequence (#) _____	STN <u>\$ 900,41</u>
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) <u>2</u>	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr. Link _____
Date Completed: <u>3/23/06</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: <u>30</u>	Fulltext _____	Sequence Systems _____
Clerical Prep Time: <u>30</u>	Patent Family _____	WWW/Internet _____
Online Time: <u>195</u>	Other _____	Other (specify) _____



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CONFIRMATION NO. 1762

Bib Data Sheet

SERIAL NUMBER 10/743,441	FILING DATE 12/23/2003 RULE	CLASS 430	GROUP ART UNIT 1752	ATTORNEY DOCKET NO. Q79134	
APPLICANTS Ikuo Kawauchi, Shizuoka, JAPAN; Ippei Nakamura, Shizuoka, JAPAN; Mitsumasa Tsuchiya, Shizuoka, JAPAN;					
** CONTINUING DATA ***** <div style="text-align: right; margin-right: 100px;">None SJL</div>					
** FOREIGN APPLICATIONS ***** JAPAN P.2002-382231 12/27/2002) JAPAN P.2003-020750 01/29/2003) SJL					
IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** 04/03/2004					
Foreign Priority claimed <input checked="" type="checkbox"/> yes <input type="checkbox"/> no 35 USC 119 (a-d) conditions met <input checked="" type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> Met after Allowance Verified and Acknowledged Examiner's Signature <u>[Signature]</u> Initials <u>SJL</u>		STATE OR COUNTRY JAPAN	SHEETS DRAWING 0	TOTAL CLAIMS 5	INDEPENDENT CLAIMS 1
ADDRESS 23373 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON , DC 20037					
TITLE Heat-sensitive lithographic printing plate precursor					
FILING FEE	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT	<div style="border: 1px solid black; padding: 2px;"> <input type="checkbox"/> All Fees </div> <div style="border: 1px solid black; padding: 2px;"> <input type="checkbox"/> 1.16 Fees (Filing) </div> <div style="border: 1px solid black; padding: 2px;"> <input type="checkbox"/> 1.17 Fees (Processing Ext. of time) </div>			

AMENDMENT UNDER 37 C.F.R. § 1.111

U.S. Appl. No.: 10/743,441

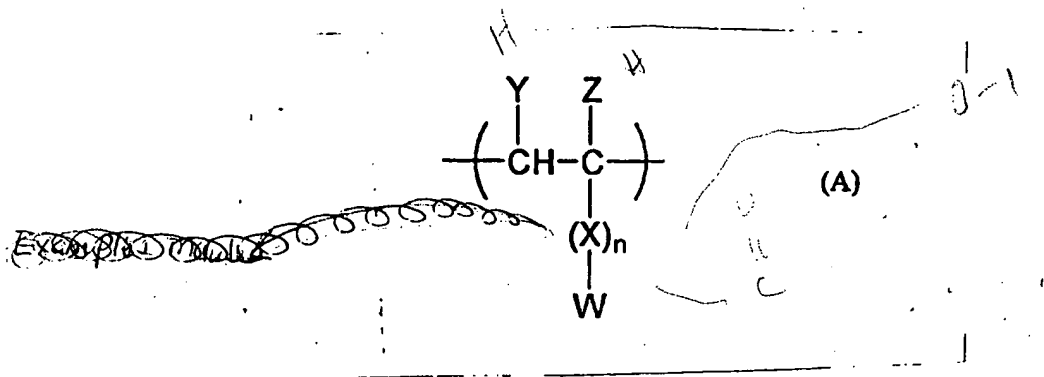
Attorney Docket No.: Q79134

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A heat-sensitive lithographic printing plate precursor comprising a support having thereon two image-forming layers each containing a polymer insoluble in water and soluble in an aqueous alkaline solution, wherein an upper layer of the image-forming layers contains a copolymer including a monomer unit represented by formula (A) shown below,



wherein W represents a carboxy group, X represents a divalent connecting group, Y represents a hydrogen atom or a carboxy group, Z represents a hydrogen atom, an alkyl group or a carboxy group, or W and Z or Y and Z may be combined with each other to form an acid anhydride group of $-(CO)-O-(CO)-$, and n represents 0 or 1.

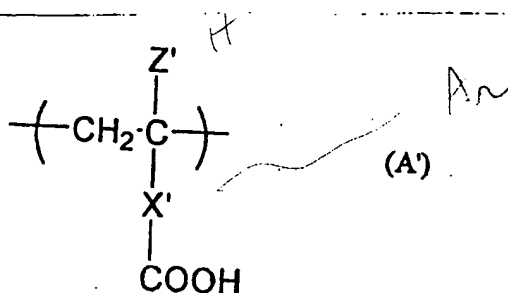
→ If you need examples for X, see cl. #2
(but it would be nice if you don't have
to narrow the search in 41

AMENDMENT UNDER 37 C.F.R. § 1.111

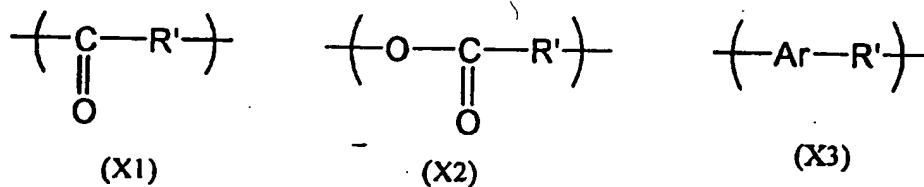
U.S. Appl. No.: 10/743,441

Attorney Docket No.: Q79134

2. (original): The heat-sensitive lithographic printing plate precursor as claimed in Claim 1, wherein the monomer unit represented by formula (A) is a monomer unit represented by formula (A') shown below,



wherein Z' represents a hydrogen atom or an alkyl group, and X' represents an arylene group, which may have a substituent, or any one of the structures represented by formulae (X1) to (X3) shown below,



wherein Ar represents an arylene group, which may have a substituent, and R' represents a divalent connecting group.

AMENDMENT UNDER 37 C.F.R. § 1.111

U.S. Appln. No.: 10/743,441

Attorney Docket No.: Q79134

3. (original): The heat-sensitive lithographic printing plate precursor as claimed in Claim 1, wherein the copolymer further contains a monomer unit derived from a monomer selected from a (meth)acrylate, a (meth)acrylamide derivative and a styrene derivative.

4. (original): The heat-sensitive lithographic printing plate precursor as claimed in Claim 1, wherein the upper layer of the image-forming layers further contains an infrared absorbing dye.

5. (original): The heat-sensitive lithographic printing plate precursor as claimed in Claim 1, wherein the upper layer of the image-forming layers further contains a dissolution inhibiting compound.

=> d his

(FILE 'HOME' ENTERED AT 08:23:10 ON 23 MAR 2006)

FILE 'HCAPLUS' ENTERED AT 08:23:50 ON 23 MAR 2006

E US20040137366/PN

L1 82 S KAWAUCHI I?/AU
 L2 1971 S NAKAMURA I?/AU
 L3 1749 S TSUCHIYA M?/AU
 L4 4 S L1 AND L2 AND L3
 L5 5651 S LITHOG?(3N)PRINT?(3N)PLATE
 L6 3 S L5 AND L4
 L7 22513 S HEAT?(3N)SENSITIV?
 L8 0 S L7 AND L6
 L9 3947 S (IR OR I()R OR INFRARED OR INFRA()RED)(2N)SENSITIV?
 L10 2 S L6 AND L9
 L11 11 S L1 AND L2
 L12 6 S L1 AND L3
 L13 6 S L2 AND L3
 L14 15 S L11-L13
 L15 9 S L14 AND L5
 L16 2 S L15 AND L7
 SEL RN

FILE 'REGISTRY' ENTERED AT 08:39:58 ON 23 MAR 2006

L17 41 S E1-E41

FILE 'HCAPLUS' ENTERED AT 08:44:40 ON 23 MAR 2006

SEL RN L10

FILE 'REGISTRY' ENTERED AT 08:45:21 ON 23 MAR 2006

L18 12 S E42-E53
 L19 0 S L17 AND L18

FILE 'LREGISTRY' ENTERED AT 09:07:19 ON 23 MAR 2006

L20 STR

FILE 'REGISTRY' ENTERED AT 09:13:06 ON 23 MAR 2006

L21 SCR 2043
 L22 50 S L20 AND L21
 L23 188824 S L20 AND L21 FUL
 SAV TEMP L23 LEE441/A

FILE 'HCAPLUS' ENTERED AT 09:18:16 ON 23 MAR 2006

L24 289177 S L23
 L25 1356 S L5 AND L24
 L26 100 S L25 AND L7
 L27 50232 S (WATER? OR H2O OR AQUEOUS)(2N)INSOL?
 L28 9 S L26 AND L27
 L29 5404 S ALKALIN?(3N)SOLUBLE
 L30 0 S L29 AND L26
 L31 6675 S ALKALINE?(5N)SOLUBLE
 L32 1 S L31 AND L26
 L33 0 S L32 AND L28
 L34 14097 S LITHOG?(5N)PLATE
 L35 8756 S LITHOG?(5N)PRINT?
 L36 16562 S L34 OR L35 OR L5
 L37 638 S L7 AND L36
 L38 165 S L23 AND L37
 L39 57182 S (WATER? OR H2O OR AQUEOUS)(5N)INSOL?
 L40 11 S L38 AND L39
 L41 3 S L38 AND L31
 L42 14 S L40 OR L41
 L43 0 S L40 AND L41
 L44 14 S L28 OR L32 OR L40-L42
 L45 0 S L44 AND (L4 OR L6 OR L14)

L46 12438 S THERM?(3N)SENSITIV?
 L47 97 S (L34 OR L35 OR L5) AND L46
 L48 19 S L47 AND L24
 L49 32 S L48 OR L44
 L50 1 S L49 AND (L4 OR L6 OR L14)

FILE 'LREGISTRY' ENTERED AT 09:43:57 ON 23 MAR 2006
 L51 STR L20

FILE 'REGISTRY' ENTERED AT 10:47:00 ON 23 MAR 2006

FILE 'LREGISTRY' ENTERED AT 10:48:23 ON 23 MAR 2006
 L52 STR L51

FILE 'REGISTRY' ENTERED AT 10:51:42 ON 23 MAR 2006

FILE 'LREGISTRY' ENTERED AT 10:52:19 ON 23 MAR 2006
 L53 STR L52

FILE 'REGISTRY' ENTERED AT 10:56:34 ON 23 MAR 2006

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 L54 STR L53

FILE 'REGISTRY' ENTERED AT 11:03:26 ON 23 MAR 2006
 L55 STR L54

FILE 'REGISTRY' ENTERED AT 11:05:19 ON 23 MAR 2006

FILE 'LREGISTRY' ENTERED AT 11:05:50 ON 23 MAR 2006
 L56 STR L55

FILE 'REGISTRY' ENTERED AT 11:15:19 ON 23 MAR 2006

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 L58 119401 S L56 SSS FUL SUB=L23
 SAV TEMP L58 LEE441A/A

FILE 'HCAPLUS' ENTERED AT 11:20:10 ON 23 MAR 2006
 L59 152835 S L58

L60 2886 S L59 AND (L5 OR L34 OR L35)

L61 133 S L60 AND (L7 OR L46)

L62 124 S L61 AND L7

L63 118 S L60 AND L39

L64 21 S L63 AND L31

L65 53 S L49 OR L64

L66 32 S L65 NOT L64

L67 53 S L65 AND 1840-2004/PY,PRY

L68 32 S L67 NOT L64

=> d que stat 149

L5 5651 SEA FILE=HCAPLUS ABB=ON PLU=ON LITHOG?(3A)PRINT?(3A)P
 LATE

L7 22513 SEA FILE=HCAPLUS ABB=ON PLU=ON HEAT?(3A)SENSITIV?
 L20 STR

6

O

||

C~~X~~C~~X~~G1~~X~~C~~X~~OH
 1 2 3 4 5

REP G1=(0-1) A

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE

L21 SCR 2043
L23 188824 SEA FILE=REGISTRY SSS FUL L20 AND L21
L24 289177 SEA FILE=HCAPLUS ABB=ON PLU=ON L23
L25 1356 SEA FILE=HCAPLUS ABB=ON PLU=ON L5 AND L24
L26 100 SEA FILE=HCAPLUS ABB=ON PLU=ON L25 AND L7
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AQUEOUS) (2A) INSOL?
L28 9 SEA FILE=HCAPLUS ABB=ON PLU=ON L26 AND L27
L31 6675 SEA FILE=HCAPLUS ABB=ON PLU=ON ALKALINE? (5A) SOLUBLE
L32 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L31 AND L26
L34 14097 SEA FILE=HCAPLUS ABB=ON PLU=ON LITHOG? (5A) PLATE
L35 8756 SEA FILE=HCAPLUS ABB=ON PLU=ON LITHOG? (5A) PRINT?
L36 16562 SEA FILE=HCAPLUS ABB=ON PLU=ON L34 OR L35 OR L5
L37 638 SEA FILE=HCAPLUS ABB=ON PLU=ON L7 AND L36
L38 165 SEA FILE=HCAPLUS ABB=ON PLU=ON L23 AND L37
L39 57182 SEA FILE=HCAPLUS ABB=ON PLU=ON (WATER? OR H2O OR
AQUEOUS) (5A) INSOL?
L40 11 SEA FILE=HCAPLUS ABB=ON PLU=ON L38 AND L39
L41 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L38 AND L31
L42 14 SEA FILE=HCAPLUS ABB=ON PLU=ON L40 OR L41
L44 14 SEA FILE=HCAPLUS ABB=ON PLU=ON L28 OR L32 OR (L40 OR
L41 OR L42)
L46 12438 SEA FILE=HCAPLUS ABB=ON PLU=ON THERM? (3A) SENSITIV?
L47 97 SEA FILE=HCAPLUS ABB=ON PLU=ON (L74 OR L35 OR L5)
AND L46
L48 19 SEA FILE=HCAPLUS ABB=ON PLU=ON L47 AND L24
L49 32 SEA FILE=HCAPLUS ABB=ON PLU=ON L48 OR L44

=> d 149 1-32 ibib abs hitstr hitind

L49 ANSWER 1 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1005527 HCAPLUS
DOCUMENT NUMBER: 143:295665
TITLE: Heat-sensitive positive-working imaging
materials containing specific polymer
INVENTOR(S): Watanabe, Kotaro; Nakamura, Ippei; Kawauchi,
Ikuo; Hatanaka, Yusuke
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 50 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005250037	A2	20050915	JP 2004-59316	2004 0303
PRIORITY APPLN. INFO.:				2004 0303

AB The title material has an underlayer containing a polymer and an IR-sensitive alkali-solubilizable imaging layer on a support, wherein the polymer has a reactive groups towards lone pair electrons, hydrogen bond-forming groups, a substituent forming ≥ 2 hydrogen bonds by heat, and a phenolic -OH group. The

materials shows high solubility discrimination for image development and wide development latitude and are suitable mainly for lithog. printing plates of high printing durability and also for color proof, photoresists, color filters, etc.

IT 864407-21-6 864407-23-8

RL: TEM (Technical or engineered material use); USES (Uses)
(Heat-sensitive pos.-working imaging materials containing specific polymer)

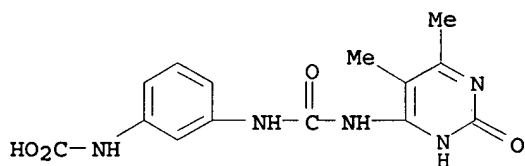
RN 864407-21-6 HCAPLUS

CN Formaldehyde, polymer with 4-(1,1-dimethylethyl)phenol and phenol, [3-[[[(1,2-dihydro-5,6-dimethyl-2-oxo-4-pyrimidinyl)amino]carbonyl]amino]phenyl]carbamate (9CI) (CA INDEX NAME)

CM 1

CRN 864407-20-5

CMF C14 H15 N5 O4



CM 2

CRN 28453-20-5

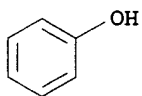
CMF (C10 H14 O . C6 H6 O . C H2 O)x

CCI PMS

CM 3

CRN 108-95-2

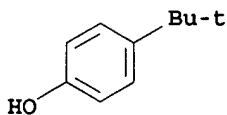
CMF C6 H6 O



CM 4

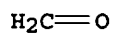
CRN 98-54-4

CMF C10 H14 O



CM 5

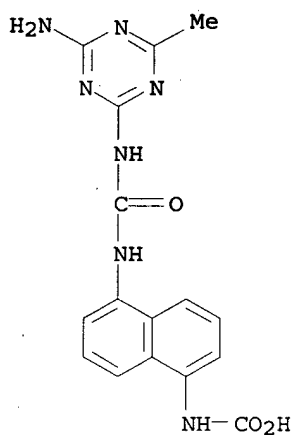
CRN 50-00-0
CMF C H2 O



RN 864407-23-8 HCAPLUS
CN Formaldehyde, polymer with 2,5-dimethylphenol and phenol,
[5-[[[(4-amino-6-methyl-1,3,5-triazin-2-yl)amino]carbonyl]amino]-2-
naphthalenyl]carbamate (9CI) (CA INDEX NAME)

CM 1

CRN 864407-22-7
CMF C16 H15 N7 O3

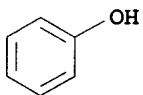


CM 2

CRN 56700-20-0
CMF (C8 H10 O . C6 H6 O . C H2 O) x
CCI PMS

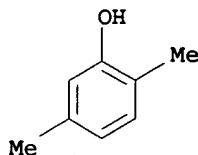
CM 3

CRN 108-95-2
CMF C6 H6 O



CM 4

CRN 95-87-4
CMF C8 H10 O



CM 5

CRN 50-00-0

CMF C H2 O

H₂C=O

IC ICM G03F007-11

ICS G03F007-00; G03F007-004

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

ST heat pos imaging polymer lithog printing plate

IT Lithographic plates

(Heat-sensitive pos.-working imaging materials containing specific polymer)

IT Imaging

(thermal; Heat-sensitive pos.-working imaging materials containing specific polymer)

IT 864407-15-8 864407-17-0 864407-19-2 864407-21-6

864407-23-8 864407-25-0 864407-27-2

RL: TEM (Technical or engineered material use); USES (Uses)

(Heat-sensitive pos.-working imaging materials containing specific polymer)

L49 ANSWER 2 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:395212 HCAPLUS

DOCUMENT NUMBER: 142:454345

TITLE: Process for production of heat-sensitive imageable elements

INVENTOR(S): Savariar-Hauck, Celin; Hauck, Gerhard; Frank, Dietmar

PATENT ASSIGNEE(S): Kodak Polychrome Graphics GmbH, Germany

SOURCE: PCT Int. Appl., 36 pp

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005039878	A1	20050506	WO 2004-EP11379	2004 1011

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
 ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH,
 CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU,
 MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI,
 CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
 DE 10347682 A1 20050609 DE 2003-10347682

2003

1014

PRIORITY APPLN. INFO.:

DE 2003-10347682

A

2003

1014

OTHER SOURCE(S): MARPAT 142:454345

AB The invention relates to a process for the production of a
heat-sensitive imageable element comprising: (a)
 providing a substrate, (b) applying a first coating solution,
 comprising at least one photothermal conversion material, at least
 one polymer A **soluble** or swellable in an aqueous **alkaline**
 developer and at least one solvent, (c) drying, (d) applying a
 second coating solution, comprising at least one cross-linkable
 polyfunctional enolether, at least one polymer B comprising
 hydroxy groups and/or carboxy groups, and at least one solvent,
 wherein the polymer used in the first coating solution does not
 dissolve in this solvent, wherein the second coating solution does
 not contain a photothermal conversion material, and (e) drying at
 a temperature of at least 60°C.

IT 321963-43-3, Methacrylamide-methacrylic
 acid-N-phenylmaleimide copolymer

RL: EPR (Engineering process); NUU (Other use, unclassified); PEP
 (Physical, engineering or chemical process); PROC (Process); USES
 (Uses)

(process for production of **heat-sensitive**
 imageable elements)

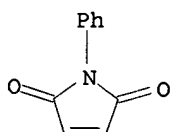
RN 321963-43-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-methyl-2-propenamide
 and 1-phenyl-1H-pyrrole-2,5-dione (9CI) (CA INDEX NAME)

CM 1

CRN 941-69-5

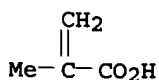
CMF C10 H7 N O2



CM 2

CRN 79-41-4

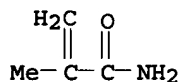
CMF C4 H6 O2



CM 3

CRN 79-39-0

CMF C4 H7 N O



IC ICM B41C001-10
ICS B41M005-36
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST **heat sensitive** imageable element; IR absorber
lithog printing plate
IT Optical materials
(IR absorbers; process for production of **heat-sensitive** imageable elements)
IT IR materials
(absorbers; process for production of **heat-sensitive** imageable elements)
IT Phenolic resins, processes
RL: EPR (Engineering process); NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(novolak; process for production of **heat-sensitive** imageable elements)
IT Drying
Lithographic plates
(process for production of **heat-sensitive** imageable elements)
IT 27029-76-1, PD 140A 130066-57-8, VECTOMER 4010 134127-48-3, Trump dye 321963-43-3, Methacrylamide-methacrylic acid-N-phenylmaleimide copolymer
RL: EPR (Engineering process); NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(process for production of **heat-sensitive** imageable elements)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 3 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:231349 HCAPLUS
DOCUMENT NUMBER: 142:325957
TITLE: **Heat-sensitive positive-working lithographic printing plate precursor**
INVENTOR(S): Hauck, Gerhard; Frank, Dietmar
PATENT ASSIGNEE(S): Kodak Polychrome Graphics GmbH, Germany
SOURCE: Ger. Offen., 20 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10337506	A1	20050317	DE 2003-10337506	2003 0814
PRIORITY APPLN. INFO.:			DE 2003-10337506	2003 0814

AB The **heat-sensitive** element comprises (A) a (pretreated) substrate, (B) a pos. working **heat-sensitive** coating layer comprising (i) at least 40 % of an aqueous alkali developer-soluble polymer, selected from novolak resins, functionalized novolak resins, polyvinylphenol resins, polyvinylcresols and poly(meth)acrylates with phenolic and/or sulfonamide side groups, (ii) 0.1-20 % of an aqueous alkali developer-**insol.** C4-20-alkylphenyl novolak resins, and (iii) optionally at least one further component selected from polymer particles, surfactants, dyes, and pigments to increase the color contrast, inorg. fillers, antioxidants, printout dyes, cellulose polymer carboxylic acid derivs., plasticizers, and substances, capable of converting 650-1300 nm light to heat.

IT **9004-38-0**, Cellulose acetate hydrogen phthalate
 RL: TEM (Technical or engineered material use); USES (Uses)
 (coating composition for **heat-sensitive**
 pos.-working lithog. printing plate
 plate precursor)

RN **9004-38-0** HCAPLUS

CN Cellulose, acetate hydrogen 1,2-benzenedicarboxylate (9CI) (CA
 INDEX NAME)

CM 1

CRN 9004-34-6

CMF Unspecified

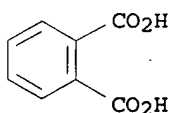
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 88-99-3

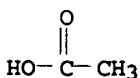
CMF C8 H6 O4



CM 3

CRN 64-19-7

CMF C2 H4 O2



IC ICM G03F007-039

ICS G03F007-004

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and
 Other Reprographic Processes)
 Section cross-reference(s): 38

ST **heat sensitive** pos working lithog
 printing plate photothermal imaging

IT Photoimaging materials
 (heat-sensitive pos.-working lithog
 . printing plate plate precursor)

IT Phenolic resins, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (novolak; coating composition for **heat-sensitive**
 pos.-working lithog. printing plate
 plate precursor)

IT Lithographic plates
 (presensitized; **heat-sensitive** pos.-working
 lithog. printing plate
 plate precursor)

IT 134127-48-3, Trump Dye
 RL: TEM (Technical or engineered material use); USES (Uses)
 (Trump Dye; coating composition for **heat-sensitive**
 pos.-working lithog. printing plate
 plate precursor)

IT 548-62-9, Crystal Violet 9004-38-0, Cellulose acetate
 hydrogen phthalate 9016-83-5, PD 494A 9039-25-2, Bakelite
 6564LB 25085-50-1, 6204K 26678-93-3, SP 1077 848044-72-4,
 Pro-Jet 825
 RL: TEM (Technical or engineered material use); USES (Uses)
 (coating composition for **heat-sensitive**
 pos.-working lithog. printing plate
 plate precursor)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L49 ANSWER 4 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:1038492 HCAPLUS

DOCUMENT NUMBER: 142:45928

TITLE: Presensitized positive-working
lithographic plate master
 showing excellent **printability** as
 well as smear resistance

INVENTOR(S): Takahashi, Miki; Sasaki, Hideto; Hotta,
 Hisashi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokyo Koho, 51 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004341141	A2	20041202	JP 2003-136545	2003 0514

PRIORITY APPLN. INFO.: JP 2003-136545

2003
0514

AB The title **lithog. plate** master includes an
 intermediate layer interposed between a hydrophilic support and a
 pos.-working **heat-sensitive** layer, wherein the
 intermediate layer contains a compound capable of interacting to a
water-insol. alkali-soluble polymer. The compound is
 a polymer having a functional side chain(s) selected from -Y-Ar,
 -Y-(CnH2nO)m-R1, -Y-CO-NR3R2, and -Y-NR5-CO-R4 [Y = single bond,
 connection group; Ar = N-containing heteroaryl; R1-5 = H,
 C1-30-hydrocarbyl; m = 1-100; n ≥ 2].

IT 28062-44-4 604813-21-0 803729-44-4

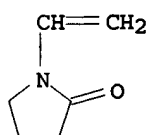
RL: DEV (Device component use); USES (Uses)
 (in intermediate layer of presensitized pos.-working
lithog. plate master showing excellent

printability as well as smear resistance)

RN 28062-44-4 HCAPLUS
 CN 2-Propenoic acid, polymer with 1-ethenyl-2-pyrrolidinone (9CI)
 (CA INDEX NAME)

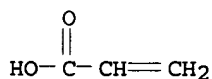
CM 1

CRN 88-12-0
 CMF C6 H9 N O



CM 2

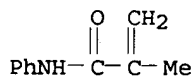
CRN 79-10-7
 CMF C3 H4 O2



RN 604813-21-0 HCAPLUS
 CN Benzoic acid, 4-ethenyl-, polymer with 2-methyl-N-phenyl-2-propenamide (9CI) (CA INDEX NAME)

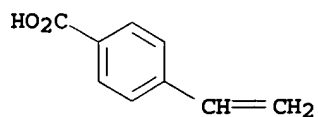
CM 1

CRN 1611-83-2
 CMF C10 H11 N O



CM 2

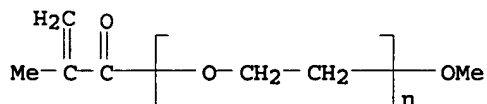
CRN 1075-49-6
 CMF C9 H8 O2



RN 803729-44-4 HCAPLUS
 CN Benzoic acid, 4-ethenyl-, polymer with α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

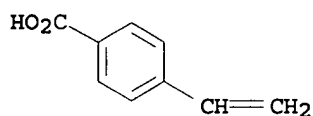
CM 1

CRN 26915-72-0
 CMF (C2 H4 O)_n C5 H8 O2
 CCI PMS



CM 2

CRN 1075-49-6
 CMF C9 H8 O2



IC ICM G03F007-11
 ICS G03F007-00; G03F007-004
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 ST lithog plate master presensitized pos working intermediate layer
 IT Lithographic plates
 (presensitized; presensitized pos.-working lithog. plate master showing excellent printability as well as smear resistance)
 IT 9003-39-8 25232-41-1 28062-44-4 604813-21-0
 803729-44-4 803729-45-5
 RL: DEV (Device component use); USES (Uses)
 (in intermediate layer of presensitized pos.-working lithog. plate master showing excellent printability as well as smear resistance)

L49 ANSWER 5 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:1019607 HCAPLUS
 DOCUMENT NUMBER: 142:30031
 TITLE: **Thermally sensitive printing plate**
 INVENTOR(S): Ray, Kevin Barry; Kitson, Anthony Paul; Kalamen, John
 PATENT ASSIGNEE(S): USA
 SOURCE: U.S. Pat. Appl. Publ., 14 pp., Cont.-in-part of U.S. Ser. No. 694,205.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004234892	A1	20041125	US 2004-802533	2004 0317
US 2003077538	A1	20030424	US 2001-948182	2001

US 6673514 B2 20040106 0907
 US 2004152010 A1 20040805 US 2003-694205

2003
 1027

WO 2005090074 A1 20050929 WO 2005-US8408

2005
 0314

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ,
 CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG,
 ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
 KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
 MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL,
 PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN,
 TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
 ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH,
 CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT,
 LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF,
 CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

US 2001-948182 A1

2001
 0907

US 2003-694205 A2

2003
 1027

US 2004-802533 A

2004
 0317

AB The present invention provides a printing plate imageable element including a substrate, a first layer applied to the substrate and a second layer applied to the first layer. The first layer may contain polymeric material and a radiation absorbing compound. The second layer may contain a hydroxyl group-containing polymer that includes a heat-labile moiety such as tert-butoxy-carbonyl groups. The plates containing polymers functionalized with t-BOC groups show a beneficial combination of developer resistance and imaging properties.

IT 321963-43-3, Methacrylamide-methacrylic acid-N-phenylmaleimide copolymer

RL: TEM (Technical or engineered material use); USES (Uses)
 (thermally sensitive printing plate)

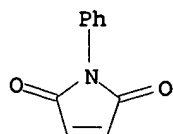
RN 321963-43-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-methyl-2-propenamide and 1-phenyl-1H-pyrrole-2,5-dione (9CI) (CA INDEX NAME)

CM 1

CRN 941-69-5

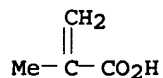
CMF C10 H7 N O2



CM 2

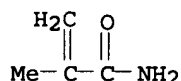
CRN 79-41-4

CMF C4 H6 O2



CM 3

CRN 79-39-0
CMF C4 H7 N O



IC ICM G03C001-73
INCL 430281100
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
ST pos **thermally sensitive** printing plate
IT Polyethers, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(di-Me siloxane-, Byk 307; **thermally sensitive** printing plate)
IT Polysiloxanes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(di-Me, polyether-, Byk 307; **thermally sensitive** printing plate)
IT Lithographic plates
(presensitized, pos.-working; **thermally sensitive** printing plate)
IT 7429-90-5, Aluminum, uses 24979-70-2, Poly 4-hydroxystyrene
25086-36-6D, N-13, tert-butoxy-carbonyl reaction products
184348-71-8 321963-43-3, Methacrylamide-methacrylic
acid-N-phenylmaleimide copolymer 586972-28-3, GP 649D99
799248-35-4
RL: TEM (Technical or engineered material use); USES (Uses)
(**thermally sensitive** printing plate)

L49 ANSWER 6 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:822872 HCAPLUS
DOCUMENT NUMBER: 141:322632
TITLE: **Lithographic printing plate precursor**
INVENTOR(S): Maemoto, Kazuo; Hotta, Hisashi
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 78 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1464514	A1	20041006	EP 2004-11700	

2002
0723

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,

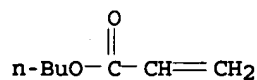
MC, PT, IE, FI, CY, TR, BG, CZ, EE, SK
 JP 2003034090 A2 20030204 JP 2001-221802 2001
 0723
 JP 2003034091 A2 20030204 JP 2001-221803 2001
 0723
 JP 2003063165 A2 20030305 JP 2001-256331 2001
 0827
 EP 1279520 A2 20030129 EP 2002-16280 2002
 0723
 EP 1279520 A3 20030618
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
 MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ,
 EE, SK
 PRIORITY APPLN. INFO.: JP 2001-221802 A 2001
 0723
 JP 2001-221803 A 2001
 0723
 JP 2001-256331 A 2001
 0827
 EP 2002-16280 A3 2002
 0723

AB The invention concerns a lithog. printing
 plate precursor comprising an aluminum substrate, a
 lipophilic image-recording layer and an overcoat layer, the
 aluminum substrate being subjected to a surface-roughening
 treatment and having a hydrophilic film, the lipophilic
 image-recording layer not comprising a hydrophilic binder resin
 and comprising a hydrophobic polymer fine particle which can
 undergo combination by heat, a light-to-heat converting agent and
 a water-insol. compound having fluidity at
 50°, and an overcoat layer comprising a water-soluble resin.
 The overcoat may contain ≥1 hydrophobic polymer fine
 particle which can undergo combination by heat and a microcapsule.
 The plates show reduced ablation and increased service life.

IT 25987-66-0P, Butyl acrylate-methacrylic acid-methyl
 methacrylate-styrene copolymer 27923-68-8P, Ethylene
 glycol-isophthalic acid-neopentyl glycol-terephthalic acid
 copolymer
 RL: IMF (Industrial manufacture); TEM (Technical or engineered
 material use); PREP (Preparation); USES (Uses)
 (fine particles; lithog. printing
 plate precursor from roughened aluminum with
 heat-sensitive polymer particles and
 microcapsules in recording layer and overcoat)
 RN 25987-66-0 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate,
 ethenylbenzene and methyl 2-methyl-2-propenoate (9CI) (CA INDEX
 NAME)

CM 1

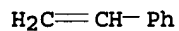
CRN 141-32-2
 CMF C7 H12 O2



CM 2

CRN 100-42-5

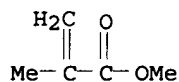
CMF C8 H8



CM 3

CRN 80-62-6

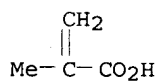
CMF C5 H8 O2



CM 4

CRN 79-41-4

CMF C4 H6 O2



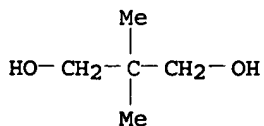
RN 27923-68-8 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with 1,4-benzenedicarboxylic acid, 2,2-dimethyl-1,3-propanediol and 1,2-ethanediol (9CI) (CA INDEX NAME)

CM 1

CRN 126-30-7

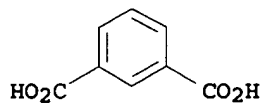
CMF C5 H12 O2



CM 2

CRN 121-91-5

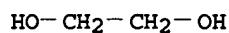
CMF C8 H6 O4



CM 3

CRN 107-21-1

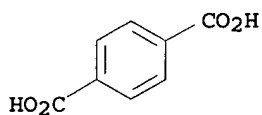
CMF C2 H6 O2



CM 4

CRN 100-21-0

CMF C8 H6 O4



IT 25036-16-2P, Butyl acrylate-methacrylic acid-styrene copolymer

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(heat-fusible particles; lithog. printing plate precursor from roughened aluminum with heat-sensitive polymer particles and microcapsules in recording layer and overcoat)

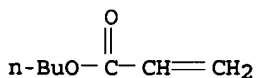
RN 25036-16-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate and ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 141-32-2

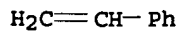
CMF C7 H12 O2



CM 2

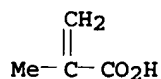
CRN 100-42-5

CMF C8 H8



CM 3

CRN 79-41-4
CMF C4 H6 O2



- IC ICM B41N003-03
ICS B41C001-10; C25F003-04
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 42
- ST **lithog printing plate precursor**
heat sensitive polymer particle microcapsule
- IT Carbon black, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(light-to-heat converting agent; **lithog. printing plate precursor** from roughened aluminum with **heat-sensitive polymer particles and microcapsules in recording layer and overcoat**)
- IT **Lithographic plates**
(**lithog. printing plate precursor** from roughened aluminum with **heat-sensitive polymer particles and microcapsules in recording layer and overcoat**)
- IT 1344-09-8, Sodium silicate
RL: NUU (Other use, unclassified); USES (Uses)
(aluminum hydrophilic treatment by; **lithog. printing plate precursor** from roughened aluminum with **heat-sensitive polymer particles and microcapsules in recording layer and overcoat**)
- IT 7631-86-9, Snowtex ST-N, uses
RL: NUU (Other use, unclassified); USES (Uses)
(colloidal, aluminum hydrophilic treatment by; **lithog. printing plate precursor** from roughened aluminum with **heat-sensitive polymer particles and microcapsules in recording layer and overcoat**)
- IT 25167-42-4P, Glycidyl methacrylate-styrene copolymer
25987-66-0P, Butyl acrylate-methacrylic acid-methyl methacrylate-styrene copolymer 27923-68-8P, Ethylene glycol-isophthalic acid-neopentyl glycol-terephthalic acid copolymer 252305-98-9P, Burnock DN-980-2,2-bis(hydroxymethyl)propionic acid copolymer
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(fine particles; **lithog. printing plate precursor** from roughened aluminum with **heat-sensitive polymer particles and microcapsules in recording layer and overcoat**)
- IT 9003-53-6P, Polystyrene 25036-16-2P, Butyl acrylate-methacrylic acid-styrene copolymer 39366-01-3P, Polycresol
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(heat-fusible particles; **lithog. printing plate precursor** from roughened aluminum with **heat-sensitive polymer particles and microcapsules in recording layer and overcoat**)
- IT 134127-48-3 172616-80-7 289893-03-4 421556-83-4
RL: TEM (Technical or engineered material use); USES (Uses)
(light-to-heat converting agent; **lithog. printing plate precursor** from roughened aluminum with **heat-sensitive polymer**)

particles and microcapsules in recording layer and overcoat)

IT 113923-32-3P 160536-34-5P 769135-47-9P 769135-48-0P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (microcapsules containing; lithog. printing plate precursor from roughened aluminum with heat-sensitive polymer particles and microcapsules in recording layer and overcoat)

IT 7429-90-5, Aluminum, processes
 RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
 (surface roughened; lithog. printing plate precursor from roughened aluminum with heat-sensitive polymer particles and microcapsules in recording layer and overcoat)

L49 ANSWER 7 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:822871 HCAPLUS

DOCUMENT NUMBER: 141:322631

TITLE: Lithographic printing plate precursor

INVENTOR(S): Maemoto, Kazuo; Hotta, Hisashi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 82 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1464513	A1	20041006	EP 2004-11675	2004 0517
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR, BG, CZ, EE, SK				
JP 2003034090	A2	20030204	JP 2001-221802	2001 0723
JP 2003034091	A2	20030204	JP 2001-221803	2001 0723
JP 2003063165	A2	20030305	JP 2001-256331	2001 0827
EP 1279520	A2	20030129	EP 2002-16280	2002 0723
EP 1279520	A3	20030618		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
EP 1586461	A1	20051019	EP 2005-13885	2002 0723
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR, BG, CZ, EE, SK				
EP 1593522	A1	20051109	EP 2005-13893	2002 0723
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR, BG, CZ, EE, SK				

PRIORITY APPLN. INFO.:

JP 2001-221802 A

2001
0723

JP 2001-221803 A

2001
0723

JP 2001-256331 A

2001
0827

EP 2002-16280 A3

2002
0723

EP 2004-11675 A3

2004
0517

AB The invention concerns a **lithog. printing plate** precursor which does not require development and comprises an aluminum substrate, an image-recording layer and a hydrophilic film, and optionally an overcoat layer. The aluminum substrate is electrochem. surface-roughened in aqueous HCl solution and is provided with a hydrophilic film having d. 1,000-3,200 kg/m³ and/or porosity 20-70%. Alternatively, the Al substrate has a surface-roughened shape with small pits; the average opening size of the small pits is 0.01-3 μm and the ratio of the average depth of the small pit to the average opening size is 0.1-0.5. The image-recording layer comprises ≥2 types of fine particles selected from heat-fusible fine particles, polymer fine particles with a heat-reactive functional group, and a microcapsule containing a heat-reactive compound; ≥1 of the fine particles combines by heat to form an image. Alternatively this layer contains self water-dispersible resin fine particles which combine by heat, and the layer is writable by IR laser exposure. When the overcoat layer comprising a water-soluble resin is present, the image recording layer does not contain a hydrophilic binder resin, but does contain a hydrophobic polymer heat-combinable fine particle, a light-to-heat converting agent and a water-insol. compound with fluidity at 50°. The overcoat layer may contain a hydrophobic polymer fine particles and/or microcapsules; it may also contain a light-to-heat converting agent and have an optical d. at the exposure wavelength that is lower than that of the image recording layer. Printing plates of the invention prevent ablation and have increased printing durability.

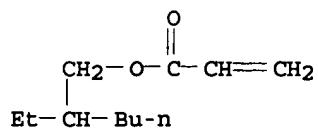
IT 25085-19-2P, Acrylic acid-2-ethylhexyl acrylate-styrene copolymer 27923-68-8P, Ethylene glycol/isophthalic acid/neopentyl glycol/terephthalic acid copolymer
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(fine particles; **lithog. printing plate** precursor from roughened aluminum with **heat-sensitive** polymer particles and microcapsules in recording layer and overcoat)

RN 25085-19-2 HCAPLUS

CN 2-Propenoic acid, polymer with ethenylbenzene and 2-ethylhexyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

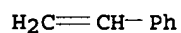
CRN 103-11-7
CMF C11 H20 O2



CM 2

CRN 100-42-5

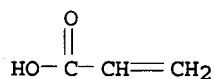
CMF C8 H8



CM 3

CRN 79-10-7

CMF C3 H4 O2



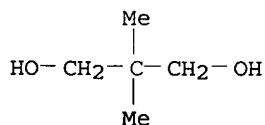
RN 27923-68-8 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with 1,4-benzenedicarboxylic acid, 2,2-dimethyl-1,3-propanediol and 1,2-ethanediol (9CI) (CA INDEX NAME)

CM 1

CRN 126-30-7

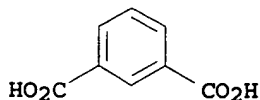
CMF C5 H12 O2



CM 2

CRN 121-91-5

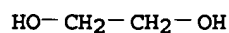
CMF C8 H6 O4



CM 3

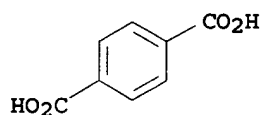
CRN 107-21-1

CMF C2 H6 O2



CM 4

CRN 100-21-0
CMF C8 H6 O4



IT 25036-16-2P, Butyl acrylate-methacrylic acid-styrene copolymer

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

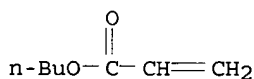
(heat-fusible particles; lithog. printing plate precursor from roughened aluminum with heat-sensitive polymer particles and microcapsules in recording layer and overcoat)

RN 25036-16-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate and ethenylbenzene (9CI) (CA INDEX NAME)

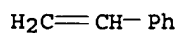
CM 1

CRN 141-32-2
CMF C7 H12 O2



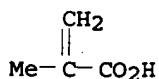
CM 2

CRN 100-42-5
CMF C8 H8



CM 3

CRN 79-41-4
CMF C4 H6 O2



IT 25987-66-0P, Butyl acrylate-methacrylic acid-methyl methacrylate-styrene copolymer

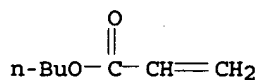
RL: IMF (Industrial manufacture); TEM (Technical or engineered

material use); PREP (Preparation); USES (Uses)
 (self water-dispersible fine particles; lithog.
 printing plate precursor from roughened
 aluminum with heat-sensitive polymer
 particles and microcapsules in recording layer and overcoat)

RN 25987-66-0 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate,
 ethenylbenzene and methyl 2-methyl-2-propenoate (9CI) (CA INDEX
 NAME)

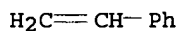
CM 1

CRN 141-32-2
 CMF C7 H12 O2



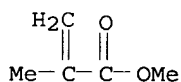
CM 2

CRN 100-42-5
 CMF C8 H8



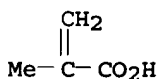
CM 3

CRN 80-62-6
 CMF C5 H8 O2



CM 4

CRN 79-41-4
 CMF C4 H6 O2



IC ICM B41N003-03
 ICS B41C001-10; C25F003-04
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and
 Other Reprographic Processes)
 Section cross-reference(s): 42
 ST lithog printing plate precursor
 heat sensitive polymer particle microcapsule
 IT Carbon black, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (light-to-heat converting agent; lithog.
 printing plate precursor from roughened

- aluminum with **heat-sensitive** polymer particles and microcapsules in recording layer and overcoat)
- IT **Lithographic plates**
 (lithog. printing plate precursor from roughened aluminum with **heat-sensitive** polymer particles and microcapsules in recording layer and overcoat)
- IT 1344-09-8, Sodium silicate
 RL: NUU (Other use, unclassified); USES (Uses)
 (aluminum hydrophilic treatment with; lithog. printing plate precursor from roughened aluminum with **heat-sensitive** polymer particles and microcapsules in recording layer and overcoat)
- IT 7631-86-9, Snowtex ST-N, uses
 RL: NUU (Other use, unclassified); USES (Uses)
 (colloidal, aluminum hydrophilic treatment with; lithog. printing plate precursor from roughened aluminum with **heat-sensitive** polymer particles and microcapsules in recording layer and overcoat)
- IT 25085-19-2P, Acrylic acid-2-ethylhexyl acrylate-styrene copolymer 27923-68-8P, Ethylene glycol/isophthalic acid/neopentyl glycol/terephthalic acid copolymer 39366-01-3P, Polycresol 252305-98-9P, Burnock DN 980-2,2-bis(hydroxymethyl)propionic acid copolymer
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (fine particles; lithog. printing plate precursor from roughened aluminum with **heat-sensitive** polymer particles and microcapsules in recording layer and overcoat)
- IT 9003-53-6P, Polystyrene 25036-16-2P, Butyl acrylate-methacrylic acid-styrene copolymer
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (heat-fusible particles; lithog. printing plate precursor from roughened aluminum with **heat-sensitive** polymer particles and microcapsules in recording layer and overcoat)
- IT 134127-48-3 172616-80-7 289893-03-4 421556-83-4
 RL: TEM (Technical or engineered material use); USES (Uses)
 (light-to-heat converting agent; lithog. printing plate precursor from roughened aluminum with **heat-sensitive** polymer particles and microcapsules in recording layer and overcoat)
- IT 113923-32-3P, Bisphenol a/epichlorohydrin/trimethylolpropane xyllylene diisocyanate adduct (1:3) copolymer 160536-34-5P, D-110N-Epikote 1001 copolymer 769135-47-9P, Bisphenol A-Takenate D 110N-hydroquinone bis(2-hydroxyethyl)ether copolymer 769135-48-0P, Bisphenol A-hydroquinone bis(2-hydroxyethyl)ether trimethylolpropane xyllylene diisocyanate adduct copolymer
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (microcapsules containing; lithog. printing plate precursor from roughened aluminum with **heat-sensitive** polymer particles and microcapsules in recording layer and overcoat)
- IT 25167-42-4P, Glycidyl methacrylate-styrene copolymer
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (particles; lithog. printing plate precursor from roughened aluminum with **heat-sensitive** polymer particles and microcapsules in recording layer and overcoat)
- IT 25987-66-0P, Butyl acrylate-methacrylic acid-methyl methacrylate-styrene copolymer
 RL: IMF (Industrial manufacture); TEM (Technical or engineered

material use); PREP (Preparation); USES (Uses)
 (self water-dispersible fine particles; lithog.
 printing plate precursor from roughened
 aluminum with heat-sensitive polymer
 particles and microcapsules in recording layer and overcoat)

IT 7429-90-5, Aluminum, processes
 RL: PEP (Physical, engineering or chemical process); PYP (Physical
 process); TEM (Technical or engineered material use); PROC
 (Process); USES (Uses)
 (surface roughened; lithog. printing
 plate precursor from roughened aluminum with
 heat-sensitive polymer particles and
 microcapsules in recording layer and overcoat)

IT 7647-01-0, Hydrochloric acid, uses
 RL: NUU (Other use, unclassified); USES (Uses)
 (surface roughening with; lithog. printing
 plate precursor from roughened aluminum with
 heat-sensitive polymer particles and
 microcapsules in recording layer and overcoat)

L49 ANSWER 8 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:801659 HCAPLUS

DOCUMENT NUMBER: 141:304335

TITLE: Original plate of
 lithographic printing
 plate

INVENTOR(S): Aogo, Toshiaki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokyo Koho, 28 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004272058	A2	20040930	JP 2003-64761	2003 0311

PRIORITY APPLN. INFO.: JP 2003-64761

OTHER SOURCE(S): MARPAT 141:304335

AB The invention is concerned about an original plate for
 making IR laser pos. lithog. printing
 plate using direct plate-making method. The
 plate comprises, on a support having a hydrophilic surface, a
 heat-sensitive layer containing (A) a water
 -insol. alkali soluble resin, (B) an IR-absorbing dye, and
 (C) a cyclodextrin derivative. The heat-sensitive
 layer has an increased solubility in aqueous alkali solution upon IR exposure.

IT 220227-02-1

RL: TEM (Technical or engineered material use); USES (Uses)
 (substrate surface coating; original plate of
 lithog. printing plate containing
 cyclodextrin derivs.)

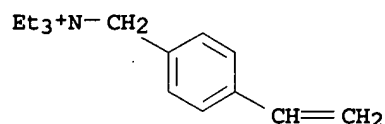
RN 220227-02-1 HCAPLUS

CN Benzenemethanaminium, 4-ethenyl-N,N,N-triethyl-, chloride, polymer
 with 4-ethenylbenzoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 14350-43-7

CMF C15 H24 N . Cl

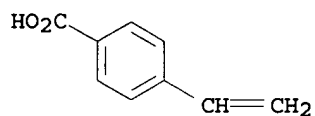


● Cl⁻

CM 2

CRN 1075-49-6

CMF C9 H8 O2



- IC ICM G03F007-004
- ICS G03F007-00; G03F007-11
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
- ST original plate lithog printing
cyclodextrin deriv
- IT Phenolic resins, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(novolak; original plate of lithog.
printing plate containing cyclodextrin derivs.)
- IT Lithographic plates
(original plate of lithog. printing
plate containing cyclodextrin derivs.)
- IT 7585-39-9D, β-Cyclodextrin, methylated 17465-86-0D,
γ-Cyclodextrin, methylated
RL: MOA (Modifier or additive use); USES (Uses)
(original plate of lithog. printing
plate containing cyclodextrin derivs.)
- IT 27029-76-1 141634-00-6
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(original plate of lithog. printing
plate containing cyclodextrin derivs.)
- IT 134127-48-3
RL: TEM (Technical or engineered material use); USES (Uses)
(original plate of lithog. printing
plate containing cyclodextrin derivs.)
- IT 220227-02-1
RL: TEM (Technical or engineered material use); USES (Uses)
(substrate surface coating; original plate of
lithog. printing plate containing
cyclodextrin derivs.)

L49 ANSWER 9 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:720340 HCAPLUS

DOCUMENT NUMBER: 141:233249

TITLE: Heat-sensitive

lithographic plates capable
of direct platemaking by digital data-based
scanning exposure
INVENTOR(S): Nagashima, Akira
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 44 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2004246051	A2	20040902	JP 2003-35455	2003 0213

PRIORITY APPLN. INFO.: JP 2003-35455

2003
0213

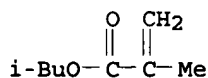
AB The plates have, on hydrophilic supports, layers containing (A) water-insol. and alkali-soluble vinyl polymers prepared from alkali-soluble monomers $H_2C:CR_1COX_1R_2Y_1nZ_1m$ [$Z_1 = O, NR_3$; $R_1 = H, Me$; $R_2 =$ single bond, bivalent organic group; $Y_1 =$ arylene; $Z_1 = OH, CO_2H, SO_2NHR_4$; $NHSO_2R_5$, etc.; $n = 0, 1$; $m \geq 1$; $R_3 = H, C_1-12$ (cyclo)alkyl, aryl, aralkyl; $R_4 = H, C_1-12$ alkyl, etc.; $R_5 = C_1-12$ alkyl, etc.] and oxyalkylene chain-bearing (meth)acrylates and (B) IR absorbers. The plates may have bilayer imaging layers consisting of lower layers containing the above vinyl polymers and upper layers containing alkali-soluble resins and development inhibitors and contain IR absorbers in the lower and/or the upper layers.

IT 80570-62-3, Acrylic acid-ethyl methacrylate-isobutyl methacrylate copolymer
RL: TEM (Technical or engineered material use); USES (Uses) (upper imaging layers; photothermal converting presensitized lithog. plates containing oxyalkylene unit-containing vinyl polymers for CTP platemaking)

RN 80570-62-3 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, ethyl ester, polymer with 2-methylpropyl 2-methyl-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

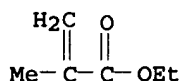
CM 1

CRN 97-86-9
CMF C8 H14 O2



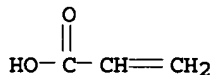
CM 2

CRN 97-63-2
CMF C6 H10 O2



CM 3

CRN 79-10-7
CMF C3 H4 O2



- IC ICM G03F007-033
ICS G03F007-00; G03F007-004; G03F007-11
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
- ST presensitized lithog direct platemaking digital scanning;
heat sensitive PS oxyalkylene methacrylate vinyl
polymer; tetraethylene glycol methacrylate polymer PS platemaking;
photothermal converting presensitized **lithog** platemaking
printing durability
- IT Dyes
(IR-absorbing, cyanine dyes; photothermal converting
presensitized **lithog. plates** containing
oxyalkylene unit-containing vinyl polymers for CTP platemaking)
- IT Phenolic resins, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(novolak, cresol-based, upper imaging layers; photothermal
converting presensitized **lithog. plates**
containing oxyalkylene unit-containing vinyl polymers for CTP
platemaking)
- IT **Lithographic plates**
(presensitized; photothermal converting presensitized
lithog. plates containing oxyalkylene unit-containing
vinyl polymers for CTP platemaking)
- IT 11146-28-4 37321-70-3, JIS A 1050
RL: TEM (Technical or engineered material use); USES (Uses)
(anodized, supports; photothermal converting presensitized
lithog. plates containing oxyalkylene unit-containing
vinyl polymers for CTP platemaking)
- IT 80-09-1
RL: MOA (Modifier or additive use); TEM (Technical or engineered
material use); USES (Uses)
(development inhibitors; photothermal converting presensitized
lithog. plates containing oxyalkylene unit-containing
vinyl polymers for CTP platemaking)
- IT 410100-15-1P
RL: IMF (Industrial manufacture); TEM (Technical or engineered
material use); PREP (Preparation); USES (Uses)
(lower imaging layers; photothermal converting presensitized
lithog. plates containing oxyalkylene unit-containing
vinyl polymers for CTP platemaking)
- IT 410100-17-3P 410100-19-5P 746676-60-8P 746676-61-9P
748133-46-2P
RL: IMF (Industrial manufacture); TEM (Technical or engineered
material use); PREP (Preparation); USES (Uses)
(lower recording layers; photothermal converting presensitized
lithog. plates containing oxyalkylene unit-containing
vinyl polymers for CTP platemaking)

IT 23578-73-6 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer
80570-62-3, Acrylic acid-ethyl methacrylate-isobutyl
methacrylate copolymer

RL: TEM (Technical or engineered material use); USES (Uses)
(upper imaging layers; photothermal converting presensitized
lithog. plates containing oxyalkylene unit-containing
vinyl polymers for CTP platemaking)

L49 ANSWER 10 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:391617 HCAPLUS

DOCUMENT NUMBER: 140:414959

TITLE: Presensitized **lithographic**
plates showing good thermal-shock
stability of photosensitivity and compositions
therefor

INVENTOR(S): Matsumura, Tomoyuki

PATENT ASSIGNEE(S): Konica Minolta Holdings Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 28 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

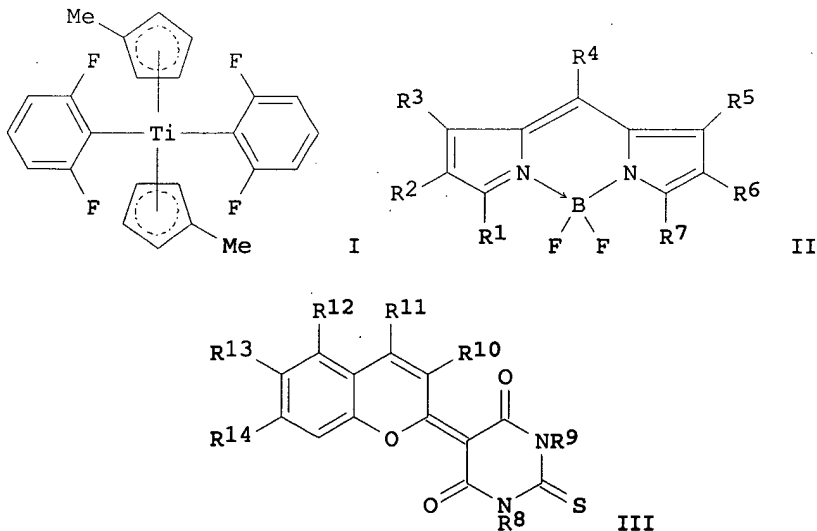
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004138875	A2	20040513	JP 2002-304257	2002 1018
PRIORITY APPLN. INFO.:				JP 2002-304257
				2002 1018

OTHER SOURCE(S): MARPAT 140:414959

GI



AB The compns. comprise (A) photopolymn. initiator compns. containing
titanocene compound I and dyes chosen from II [R1-R7 = H, alkyl,

acyl(alkyl), acyloxyalkyl, alkoxyalkyl, cyano], III [R8, R9 = (substituted) alkyl; R10, R11 = H, alkyl, CH(3-n)Xn; X = halo; n = 0-3; R12-R14 = H, (substituted) alkyl or aryl, (alkyl)amino, dialkylamino; R11 and R12 may form ring], and/or IV [R15-R18 = H, halo; R19 = H, (substituted) alkyl; M = H, alkali metal], (B) ethylenic double bond-containing monomers capable of addition polymerization, and (C) macromol. binders. Photosensitive lithog.

plates having the compns. on hydrophilic surfaces of substrates are useful for CTP (computer-to-plate) system.

IT 280776-33-2P, Acrylonitrile-ethyl methacrylate-methacrylic acid-methyl methacrylate copolymer glycidyl methacrylate ester
 RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(presensitized lithog. plates containing titanocene photopolymn. initiators and photosensitizing dyes showing thermal shock-resistant sensitivity)

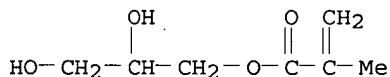
RN 280776-33-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with ethyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and 2-propenenitrile, 2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 5919-74-4

CMF C7 H12 O4



CM 2

CRN 102772-82-7

CMF (C6 H10 O2 . C5 H8 O2 . C4 H6 O2 . C3 H3 N)x

CCI PMS

CM 3

CRN 107-13-1

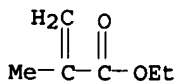
CMF C3 H3 N



CM 4

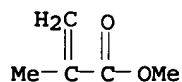
CRN 97-63-2

CMF C6 H10 O2



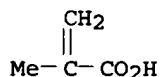
CM 5

CRN 80-62-6
CMF C5 H8 O2



CM 6

CRN 79-41-4
CMF C4 H6 O2



- IC ICM G03F007-029
ICS G03F007-00; G03F007-031
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35, 38
- ST presensitized lithog plate thermal shock stability; titanocene photopolymn initiator photosensitizer dye lithog sensitivity; acrylic photoimaging stable photosensitivity lithog plate
- IT Polyamides, preparation
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic; presensitized lithog. plates containing titanocene photopolymn. initiators and photosensitizing dyes showing thermal shock-resistant sensitivity)
- IT Photoimaging materials
(photopolymerizable; presensitized lithog. plates containing titanocene photopolymn. initiators and photosensitizing dyes showing thermal shock-resistant sensitivity)
- IT Polymerization catalysts
(photopolymn.; presensitized lithog. plates containing titanocene photopolymn. initiators and photosensitizing dyes showing thermal shock-resistant sensitivity)
- IT Dyes
(photosensitizing; presensitized lithog. plates containing titanocene photopolymn. initiators and photosensitizing dyes showing thermal shock-resistant sensitivity)
- IT Lithographic plates
(presensitized; presensitized lithog. plates containing titanocene photopolymn. initiators and photosensitizing dyes showing thermal shock-resistant sensitivity)
- IT 91105-84-9, NK Oligo U 4HA
RL: RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)
(NK Oligo U 4HA; presensitized lithog. plates containing titanocene photopolymn. initiators and photosensitizing dyes showing thermal shock-resistant sensitivity)
- IT 123968-25-2
RL: RCT (Reactant); TEM (Technical or engineered material use);

RACT (Reactant or reagent); USES (Uses)
(Sumilizer GS; presensitized lithog. plates
containing titanocene photopolymn. initiators and photosensitizing
dyes showing thermal shock-resistant
sensitivity)

IT 93709-39-8

RL: CAT (Catalyst use); TEM (Technical or engineered material
use); USES (Uses)

(photopolymn. initiators; presensitized lithog.
plates containing titanocene photopolymn. initiators and
photosensitizing dyes showing thermal shock-resistant
sensitivity)

IT 6359-05-3 118234-41-6 137829-79-9 151486-56-5 685898-80-0
685898-81-1 686304-98-3

RL: CAT (Catalyst use); TEM (Technical or engineered material
use); USES (Uses)

(photosensitive dyes; presensitized lithog.
plates containing titanocene photopolymn. initiators and
photosensitizing dyes showing thermal shock-resistant
sensitivity)

IT 280776-33-2P, Acrylonitrile-ethyl methacrylate-methacrylic
acid-methyl methacrylate copolymer glycidyl methacrylate ester

RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical
or engineered material use); PREP (Preparation); RACT (Reactant or
reagent); USES (Uses)

(presensitized lithog. plates containing
titanocene photopolymn. initiators and photosensitizing dyes
showing thermal shock-resistant sensitivity
)

IT 685898-82-2

RL: RCT (Reactant); TEM (Technical or engineered material use);
RACT (Reactant or reagent); USES (Uses)

(presensitized lithog. plates containing
titanocene photopolymn. initiators and photosensitizing dyes
showing thermal shock-resistant sensitivity
)

L49 ANSWER 11 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:291555 HCAPLUS

DOCUMENT NUMBER: 140:329560

TITLE: Method of plate-making
positive-working lithographic
printing plate

INVENTOR(S): Aogo, Toshiaki; Onishi, Hiroaki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 30 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004109442	A2	20040408	JP 2002-271435	2002 0918

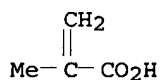
PRIORITY APPLN. INFO.: JP 2002-271435

2002
0918

AB The pos.-working lithog. printing master
plate contains an IR absorbing dye and a water-
insol. and alkali-soluble resin in a heat-
sensitive layer on a water-insol.

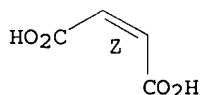
resin- and alkali-soluble resin-based subbing layer formed on the hydrophilic surface of support, in which the solubility of the heat sensitive layer in an alkali aqueous solution increases upon receiving an IR irradiation The pos.-working lithog. printing master plate receives an IR imagewise exposure, and is developed using an alkali developer which contains ≥ 1 water-soluble polymer compound having sulfonic acid group, carboxylic acid group, phosphonic acid group, and /or salt thereof, a buffer compound, and a base compound

IT 25087-26-7, Methacrylic acid homopolymer
25300-64-5, Maleic acid-styrene copolymer
28391-39-1
RL: TEM (Technical or engineered material use); USES (Uses)
(developer for plate-making of pos.-working lithog. printing plate)
RN 25087-26-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, homopolymer (9CI) (CA INDEX NAME)
CM 1
CRN 79-41-4
CMF C4 H6 O2

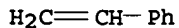


RN 25300-64-5 HCAPLUS
CN 2-Butenedioic acid (2Z)-, polymer with ethenylbenzene (9CI) (CA INDEX NAME)
CM 1
CRN 110-16-7
CMF C4 H4 O4

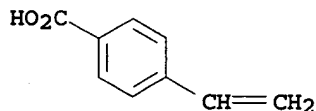
Double bond geometry as shown.



CM 2
CRN 100-42-5
CMF C8 H8



RN 28391-39-1 HCAPLUS
CN Benzoic acid, 4-ethenyl-, homopolymer (9CI) (CA INDEX NAME)
CM 1
CRN 1075-49-6
CMF C9 H8 O2



IC ICM G03F007-32
ICS G03F007-00; G03F007-004
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
ST **plate making pos working lithog**
printing developer polymer compd
IT Phenolic resins, uses
RL: NUU (Other use, unclassified); USES (Uses)
(novolak; **plate-making of pos.-working lithog**
printing plate from)
IT 25087-26-7, Methacrylic acid homopolymer
25300-64-5, Maleic acid-styrene copolymer 27754-99-0
28391-39-1 54640-82-3 83328-59-0
RL: TEM (Technical or engineered material use); USES (Uses)
(developer for **plate-making of pos.-working**
lithog. printing plate)
IT 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer 134127-48-3
RL: NUU (Other use, unclassified); USES (Uses)
(**plate-making of pos.-working lithog.**
printing plate from)

L49 ANSWER 12 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:247061 HCAPLUS

DOCUMENT NUMBER: 140:278450

TITLE: Method of making lithographic
printing plate

INVENTOR(S): Takamiya, Shuichi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 48 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1400856	A2	20040324	EP 2003-21009	2003 0917
JP 2004133433	A2	20040430	JP 2003-317014	2003 0909
US 2004063036	A1	20040401	US 2003-663846	2003 0917
PRIORITY APPLN. INFO.:			JP 2002-275050	A 2002 0920
			JP 2002-275052	A 2002 0920

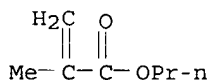
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ,
EE, HU, SK

- AB A method of making a printing plate from a **heat-sensitive** PS plate of a pos.-working mode for **lithog. printing** includes the steps of exposing the **heat-sensitive** PS plate to light and developing the PS plate using an alkaline developing solution containing at least one compound selected from the group consisting of cationic surfactants and compds. having three or more of an ethylene oxide-terminal group in the mol. thereof. The PS plate has a substrate and an image forming layer formed thereon, said image forming layer comprising a lower layer which is formed on the substrate and contains a **water-insol.** and alkali-soluble resin and an upper **heat-sensitive** layer which is overlaid on the lower layer and contains a **water-insol.** and alkali-soluble resin and an IR absorption dye and exhibits an elevated solubility with respect to alkaline aqueous solns. when heated.
- IT 58931-97-8P, Methacrylic acid-propyl methacrylate copolymer 175221-27-9P, Ethyl methacrylate-isobutyl methacrylate-methacrylic acid copolymer 502841-14-7P
 RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (method of making **lithog. printing** plate containing)
- RN 58931-97-8 HCAPLUS
- CN 2-Propenoic acid, 2-methyl-, polymer with propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 2210-28-8

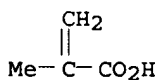
CMF C7 H12 O2



CM 2

CRN 79-41-4

CMF C4 H6 O2

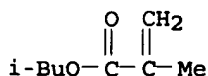


- RN 175221-27-9 HCAPLUS
- CN 2-Propenoic acid, 2-methyl-, polymer with ethyl 2-methyl-2-propenoate and 2-methylpropyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

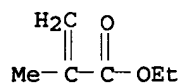
CM 1

CRN 97-86-9

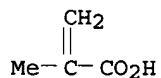
CMF C8 H14 O2



CM 2

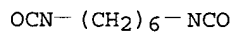
CRN 97-63-2
CMF C6 H10 O2

CM 3

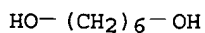
CRN 79-41-4
CMF C4 H6 O2

RN 502841-14-7 HCAPLUS
 CN Benzoic acid, 3,5-dihydroxy-, polymer with 1,6-diisocyanatohexane,
 1,6-hexanediol and 1,1'-methylenebis[4-isocyanatobenzene] (9CI)
 (CA INDEX NAME)

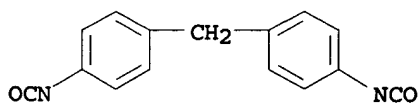
CM 1

CRN 822-06-0
CMF C8 H12 N2 O2

CM 2

CRN 629-11-8
CMF C6 H14 O2

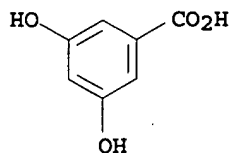
CM 3

CRN 101-68-8
CMF C15 H10 N2 O2

CM 4

CRN 99-10-5

CMF C7 H6 O4



- IC ICM G03F007-32
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 35, 38
 ST **lithog printing plate** cationic surfactant
 IT Surfactants
 (cationic; method of making lithog. printing plate)
 IT **Lithographic plates**
 (method of making lithog. printing plate)
 IT 56-34-8, Tetraethylammonium chloride 64-20-0, Tetramethylammonium bromide 71-91-0, Tetraethylammonium bromide 75-57-0, Tetramethylammonium chloride 75-59-2, Tetramethylammonium hydroxide 77-98-5, Tetraethylammonium hydroxide 121-54-0 139-07-1 538-71-6 1112-67-0, Tetrabutylammonium chloride 1643-19-2, Tetrabutylammonium bromide 1941-30-6, Tetrapropylammonium bromide 2052-49-5, Tetrabutylammonium hydroxide 4499-86-9, Tetrapropylammonium hydroxide 5810-42-4, Tetrapropylammonium chloride 6272-74-8 7552-23-0 15510-55-1 15809-19-5 22159-25-7 71732-96-2 138107-05-8 184652-52-6 400655-66-5 495417-89-5 495417-91-9 674798-03-9
 RL: TEM (Technical or engineered material use); USES (Uses)
 (cationic surfactant; method of making lithog. printing plate containing)
 IT 58931-97-8P, Methacrylic acid-propyl methacrylate copolymer 153991-97-0P, 2,2-Bis(hydroxymethyl)propionic acid-1,4-butane diol-4,4'-diphenylmethane diisocyanate-hexamethylene diisocyanate-tetraethylene glycol copolymer 175221-27-9P, Ethyl methacrylate-isobutyl methacrylate-methacrylic acid copolymer 502841-14-7P
 RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (method of making lithog. printing plate containing)
 IT 27014-42-2 31694-55-0 36936-60-4 50586-59-9 110134-52-6 154278-88-3
 RL: TEM (Technical or engineered material use); USES (Uses)
 (method of making lithog. printing plate containing)

L49 ANSWER 13 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:671500 HCAPLUS

DOCUMENT NUMBER: 139:188366

TITLE: Positive-working heat
 sensitive lithography
 printing plate with high
 development latitude

INVENTOR(S): Watanabe, Noriaki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 26 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003241388	A2	20030827	JP 2002-43565	2002 0220
US 2003183106	A1	20031002	US 2003-364400	2003 0212
US 6849380	B2	20050201	JP 2002-43565	A 2002 0220

PRIORITY APPLN. INFO.:

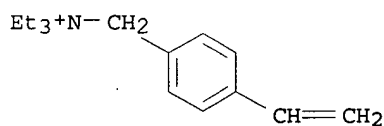
AB Title printing plate is obtained by laminating an aluminum substrate, which has been subjected to anode oxidative treatment, an undercoat comprising polymer having acid group-containing components and onium group-containing components, a middle layer comprising a resin which is **water-insol.** but soluble in alkali, and a **heat-sensitive** layer which comprises a **water-insol.** but alkali-soluble resin and an IR-absorbing dye and becomes more soluble in aqueous alkali upon heating.

IT 220227-02-1 252721-97-4 252721-98-5
 RL: TEM (Technical or engineered material use); USES (Uses)
 (undercoat; pos.-working **heat sensitive**
lithog. printing plate with high
 development latitude)

RN. 220227-02-1 HCAPLUS
 CN Benzenemethanaminium, 4-ethenyl-N,N,N-triethyl-, chloride, polymer
 with 4-ethenylbenzoic acid (9CI) (CA INDEX NAME)

CM 1

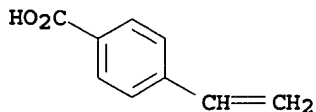
CRN 14350-43-7
 CMF C15 H24 N . Cl



● Cl⁻

CM 2

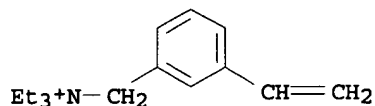
CRN 1075-49-6
 CMF C9 H8 O2



RN 252721-97-4 HCAPLUS
 CN Benzenemethanaminium, 3-ethenyl-N,N,N-triethyl-, chloride, polymer
 with 4-ethenylbenzoic acid and 4-ethenyl-N,N,N-
 triethylbenzenemethanaminium chloride (9CI) (CA INDEX NAME)

CM 1

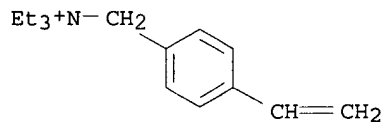
CRN 91277-26-8
 CMF C15 H24 N . Cl



● Cl⁻

CM 2

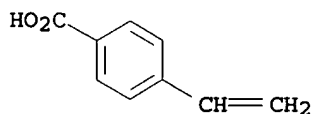
CRN 14350-43-7
 CMF C15 H24 N . Cl



● Cl⁻

CM 3

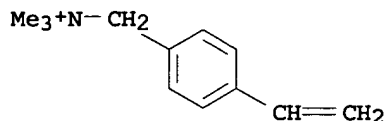
CRN 1075-49-6
 CMF C9 H8 O2



RN 252721-98-5 HCAPLUS
 CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, chloride,
 polymer with 4-ethenylbenzoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 7538-38-7
 CMF C12 H18 N . Cl

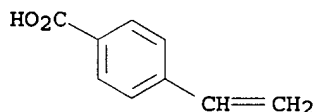


● Cl⁻

CM 2

CRN 1075-49-6

CMF C9 H8 O2



- IC ICM G03F007-11
ICS B41N001-14; G03F007-00; G03F007-004; G03F007-039
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
- ST pos working heat sensitive lithog
printing plate
- IT Phenolic resins, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(novolak, middle layer and heat-sensitive layer; pos.-working heat sensitive lithog. printing plate with high development latitude)
- IT Lithographic plates
(planog.; pos.-working heat sensitive lithog. printing plate with high development latitude)
- IT 134127-48-3
RL: MOA (Modifier or additive use); USES (Uses)
(IR-absorbing dye; pos.-working heat sensitive lithog. printing plate with high development latitude)
- IT 7429-90-5, Aluminum, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(alloy; pos.-working heat sensitive lithog. printing plate with high development latitude)
- IT 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(middle layer and heat-sensitive layer; pos.-working heat sensitive lithog. printing plate with high development latitude)
- IT 141634-00-6
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(middle layer; pos.-working heat sensitive lithog. printing plate with high development latitude)

IT 220227-02-1 252721-97-4 252721-98-5

RL: TEM (Technical or engineered material use); USES (Uses)
 (undercoat; pos.-working heat sensitive
 lithog. printing plate with high
 development latitude)

L49 ANSWER 14 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:69136 HCAPLUS

DOCUMENT NUMBER: 138:129047

TITLE: Directly imaging IR-sensitive positive-working
 lithographic printing master
 plates having upper recording layer
 with enol ether compound and lower recording
 layer

INVENTOR(S): Iwato, Kaoru

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 26 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003029400	A2	20030129	JP 2001-220082	2001 0719

PRIORITY APPLN. INFO.:

JP 2001-220082

2001
0719

AB The title master plate has a first recording layer, which contains
 a water-insol. alkali solubilizable resin, and
 a second image-forming layer, which contains a compound having
 ≥ 2 enol ether groups, a resin reacting with the enol ether
 to form crosslinking, a light-to-heat converting agent, and a
 heat-sensitive acid generator, on a support.
 The material provides the printing master plate precursor of high
 sensitivity, wide image-forming condition latitude, and the high
 scratch-resistance.

IT 187102-42-7 191545-17-2 206447-23-6

RL: TEM (Technical or engineered material use); USES (Uses)
 (resin in second image-forming layer; directly imaging
 IR-sensitive lithog. printing plate
 master materials)

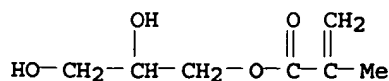
RN 187102-42-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2,3-dihydroxypropyl
 2-methyl-2-propenoate and phenylmethyl 2-methyl-2-propenoate (9CI)
 (CA INDEX NAME)

CM 1

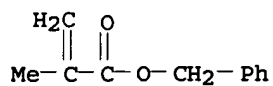
CRN 5919-74-4

CMF C7 H12 O4



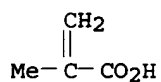
CM 2

CRN 2495-37-6
CMF C11 H12 O2



CM 3

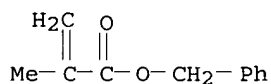
CRN 79-41-4
CMF C4 H6 O2



RN 191545-17-2 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with 2-hydroxyethyl
2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and
phenylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

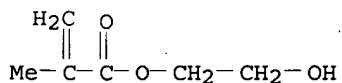
CM 1

CRN 2495-37-6
CMF C11 H12 O2



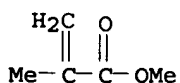
CM 2

CRN 868-77-9
CMF C6 H10 O3



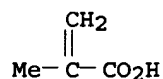
CM 3

CRN 80-62-6
CMF C5 H8 O2



CM 4

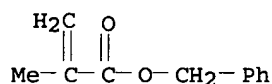
CRN 79-41-4
CMF C4 H6 O2



RN 206447-23-6 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with 2-hydroxyethyl
 2-propenoate, phenylmethyl 2-methyl-2-propenoate and
 2-propenenitrile (9CI) (CA INDEX NAME)

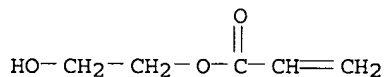
CM 1

CRN 2495-37-6
 CMF C11 H12 O2



CM 2

CRN 818-61-1
 CMF C5 H8 O3



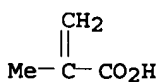
CM 3

CRN 107-13-1
 CMF C3 H3 N



CM 4

CRN 79-41-4
 CMF C4 H6 O2



IC ICM G03F007-004
 ICS G03F007-004; G03F007-00; G03F007-11
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and
 Other Reprographic Processes)
 Section cross-reference(s): 35
 ST imaging IR pos lithog printing master
 plate
 IT Light-sensitive materials
 Lithographic plates

- (directly imaging IR-sensitive lithog. printing plate master materials)
- IT 13891-29-7 66003-78-9 84563-54-2 220122-66-7
 RL: TEM (Technical or engineered material use); USES (Uses)
 (acid generator in second image-forming layer; directly imaging IR-sensitive lithog. printing plate master materials)
- IT 52411-04-8 134905-23-0 491578-24-6 491578-25-7 491578-26-8
 491578-27-9 491578-28-0 491578-29-1
 RL: TEM (Technical or engineered material use); USES (Uses)
 (enol ether in second image-forming layer; directly imaging IR-sensitive lithog. printing plate master materials)
- IT 134127-48-3 460337-33-1 491578-31-5 491578-33-7
 RL: TEM (Technical or engineered material use); USES (Uses)
 (light-to-heat converting agent in second image-forming layer; directly imaging IR-sensitive lithog. printing plate master materials)
- IT 63-74-1, p-Aminobenzenesulfonamide 79-41-4, Methacrylic acid, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (resin in first image-forming layer; directly imaging IR-sensitive lithog. printing plate master materials)
- IT 56992-87-1P, N-(p-Aminosulfonylphenyl)methacrylamide
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (resin in first image-forming layer; directly imaging IR-sensitive lithog. printing plate master materials)
- IT 463312-06-3P, N-(p-Aminosulfonylphenyl)methacrylamide-ethyl methacrylate-acrylonitrile-methyl methacrylate copolymer
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (resin in first image-forming layer; directly imaging IR-sensitive lithog. printing plate master materials)
- IT 24979-70-2, 4-Hydroxystyrene homopolymer 187102-42-7
 191545-17-2 206447-23-6 491578-23-5
 RL: TEM (Technical or engineered material use); USES (Uses)
 (resin in second image-forming layer; directly imaging IR-sensitive lithog. printing plate master materials)

L49 ANSWER 15 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2002:793941 HCAPLUS
 DOCUMENT NUMBER: 137:302272
 TITLE: Substrate improvements for thermally imageable lithog printing plate
 INVENTOR(S): Huang, Jen-Chi; Zhong, Xing-Fu; Pappas, S. Peter; Saraiya, Shashikant
 PATENT ASSIGNEE(S): Kodak Polychrome Graphics, L.L.C., USA
 SOURCE: PCT Int. Appl., 45 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2002082183	A1	20021017	WO 2002-US2037	2002 0123

W: JP

RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU,
MC, NL, PT, SE, TR

US 2002172888 A1 20021121 US 2001-826315

2001
0404

US 6692890 B2 20040217

EP 1373979 A1 20040102 EP 2002-709152

2002
0123R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
MC, PT, IE, FI, CY, TR

JP 2004524579 T2 20040812 JP 2002-579889

2002
0123

PRIORITY APPLN. INFO.:

US 2001-826315

A

2001
0404

WO 2002-US2037

W

2002
0123

AB The present invention includes a radiation-imageable element for lithog. printing plate having a hydrophilic anodized aluminum base with a surface having pores and an image-forming layer having polymer particles coated on the aluminum base. The ratio of the average pore diameter to the average particle diameter is from 0.4:1 to 10:1. The present invention further includes a method of producing the imaged element. The method includes the steps of imagewise exposing the radiation-imageable element to radiation to produce exposed and unexposed regions and contacting the imagewise exposed radiation-imageable element and a developer to remove the exposed or unexposed regions. The present invention provides average pore diameter to average particle diameter ratios that can enhance the interaction of the image-forming layer with the substrate surface layer following thermal imaging by allowing the polymer particles to enter into the oxide pores of the substrate, thereby enhancing adhesion. The enhanced adhesion, in turn, will enhance the sensitivity and the press life of the printing plates.

IT 9003-01-4, Polyacrylic acid

RL: TEM (Technical or engineered material use); USES (Uses)
(interlayer; porous substrate for thermally imageable lithog printing plate)

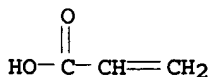
RN 9003-01-4 HCAPLUS

CN 2-Propenoic acid, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 79-10-7

CMF C3 H4 O2



IT 25085-34-1P, Acrylic acid-styrene copolymer

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(porous substrate for thermally imageable lithog printing plate)

RN 25085-34-1 HCAPLUS

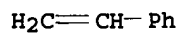
CN 2-Propenoic acid, polymer with ethenylbenzene (9CI) (CA INDEX

NAME)

CM 1

CRN 100-42-5

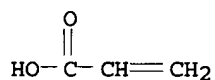
CMF C8 H8



CM 2

CRN 79-10-7

CMF C3 H4 O2



IT 25133-97-5P, Ethyl acrylate-methacrylic acid-methyl methacrylate copolymer

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(porous substrate for thermally imageable lithog printing plate)

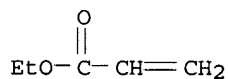
RN 25133-97-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with ethyl 2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 140-88-5

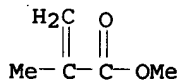
CMF C5 H8 O2



CM 2

CRN 80-62-6

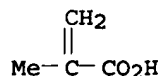
CMF C5 H8 O2



CM 3

CRN 79-41-4

CMF C4 H6 O2



IC ICM G03F007-00
ICS G03F007-004; G03F007-039; G03F007-09; G03F007-20; G03F007-40
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
ST **thermally sensitive lithog printing plate** porous substrate
IT **Lithographic plates**
(**thermally sensitive; porous substrate for thermally imageable lithog printing plate**)
IT 6834-92-0 **9003-01-4**, Polyacrylic acid 27754-99-0, Polyvinyl phosphonic acid
RL: TEM (Technical or engineered material use); USES (Uses)
(interlayer; porous substrate for thermally imageable lithog printing plate)
IT 25085-34-1P, Acrylic acid-styrene copolymer
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(porous substrate for thermally imageable lithog printing plate)
IT 25133-97-5P, Ethyl acrylate-methacrylic acid-methyl methacrylate copolymer
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(porous substrate for thermally imageable lithog printing plate)
IT 224966-09-0, CWA
RL: TEM (Technical or engineered material use); USES (Uses)
(porous substrate for thermally imageable lithog printing plate)
IT 7429-90-5, Aluminum, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(substrate; porous substrate for thermally imageable lithog printing plate)
REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 16 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:686759 HCAPLUS
DOCUMENT NUMBER: 137:224165
TITLE: Thermal-type presensitized lithographic printing plate containing organic silver salt and lipophilic thermoplastic grain and manufacture thereof
INVENTOR(S): Matsumura, Tomoyuki
PATENT ASSIGNEE(S): Konica Co., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002258484	A2	20020911	JP 2001-59868	

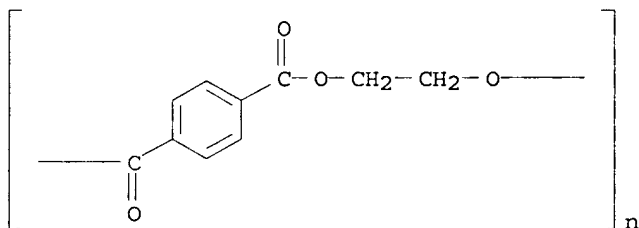
2001
0305

PRIORITY APPLN. INFO.:

JP 2001-59868

2001
0305

- AB The thermal-type presensitized lithog. printing plate comprises a recording layer formed on a hydrophilic layer on an Al support, in which the recording layer contains a hydrophilic binder, a lipophilic thermoplastic grain, a heat-sensitive reducing agent, a photosensitive Ag halide, and an organic Ag salt. The Al support is roughened mech. and/or elec. The process comprises the steps of (1) effecting an imagewise exposure, (2) heat-developing at a temperature lower than the softening point of the lipophilic thermoplastic grain such as carnauba wax and oligosaccharide, thereby forming black Ag which functions as a light-to-heat conversion element, (3) effecting an overall exposure, and (4) processing with a dampening water.
- IT 25038-59-9, PET, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(support; thermal-type presensitized lithog. printing plate from org silver salt and lipophilic thermoplastic grain)
- RN 25038-59-9 HCAPLUS
- CN Poly(oxy-1,2-ethanedioxydicarbonyl-1,4-phenylenecarbonyl) (9CI)
(CA INDEX NAME)



- IC ICM G03F007-06
ICS B41N001-14; G03C001-498; G03C001-76; G03F007-00; G03F007-004;
G03F007-26
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
- ST thermal presensitized lithog printing
plate org silver salt; lipophilic thermoplastic grain
thermal presensitized lithog printing
plate
- IT Polyesters, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(support; thermal-type presensitized lithog. printing plate from org silver salt and lipophilic thermoplastic grain)
- IT Lithographic plates
(thermal-type presensitized lithog. printing
plate from org silver salt and lipophilic thermoplastic
grain)
- IT Carnauba wax
RL: TEM (Technical or engineered material use); USES (Uses)
(thermal-type presensitized lithog. printing
plate from org silver salt and lipophilic thermoplastic
grain)
- IT 99-20-7
RL: TEM (Technical or engineered material use); USES (Uses)
(hydrophilic binder; thermal-type presensitized lithog
. printing plate from organic silver salt and

lipophilic thermoplastic grain)
 IT 25038-59-9, PET, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (support; thermal-type presensitized lithog.
 printing plate from org silver salt and
 lipophilic thermoplastic grain)
 IT 7429-90-5, Aluminum, uses 37321-70-3, JIS A1050
 RL: DEV (Device component use); USES (Uses)
 (thermal-type presensitized lithog. printing
 plate from org silver salt and lipophilic thermoplastic
 grain)
 IT 112-85-6, Behenic acid 506-30-9, Arachidic acid 2489-05-6,
 Silver behenate 7761-88-8, Silver nitrate, uses 24687-57-8,
 Silver arachidate
 RL: TEM (Technical or engineered material use); USES (Uses)
 (thermal-type presensitized lithog. printing
 plate from org silver salt and lipophilic thermoplastic
 grain)
 IT 7292-14-0
 RL: TEM (Technical or engineered material use); USES (Uses)
 (thermal-type presensitized lithog. printing
 plate from organic silver salt and lipophilic
 thermoplastic grain)

L49 ANSWER 17 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2001:713247 HCAPLUS
 DOCUMENT NUMBER: 135:264594
 TITLE: Planographic thermal processless imaging
 printing plate
 INVENTOR(S): Burberry, Mitchell S.; Bailey, David B.
 PATENT ASSIGNEE(S): Kodak Polychrome Graphics Co. Ltd., USA
 SOURCE: PCT Int. Appl., 36 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001070502	A2	20010927	WO 2001-US8802	2001 0319
WO 2001070502	A3	20020103		
W:			AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM	
RW:			GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG	
US 6458507	B1	20021001	US 2000-531117	2000 0320
EP 1265753	A2	20021218	EP 2001-924211	2001 0319
R:			AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR	
JP 2004517752	T2	20040617	JP 2001-568733	2001

PRIORITY APPLN. INFO.:

US 2000-531117

A

0319

2000

0320

WO 2001-US8802

W

2001

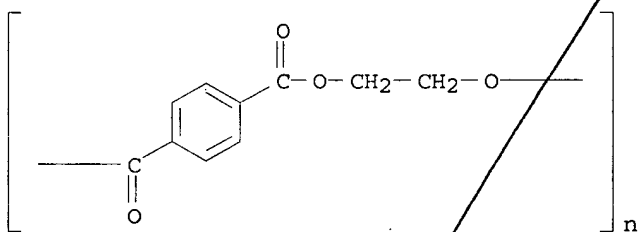
0319

AB A thermally sensitive imaging member can be imaged using thermal energy such as from an IR-emitting laser and then used for lithog. printing. The imaging member includes a support having an ink-repellent subbing layer and a thermally sensitive, ink-repellent surface imaging layer. Imaging causes a "switching" in the exposed surface regions to a more oleophilic or ink-accepting nature. Post-imaging processing is unnecessary in this imaging system. The surface imaging layer includes a thermally sensitive copolymer of silicone "soft" segments and thermally sensitive "hard" segments as well as a photothermal conversion material that is IR radiation sensitive.

IT 25038-59-9, Polyethylene terephthalate, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (support; planog. thermal processless imaging printing plate comprising ink-repellent subbing layer and thermally sensitive imaging layer)

RN 25038-59-9 HCAPLUS

CN Poly(oxy-1,2-ethanedioxydicarbonyl-1,4-phenylenecarbonyl) (9CI)
 (CA INDEX NAME)



IC ICM B41C001-10

ICS B41M005-36

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 38

IT Lithographic plates

(planog. thermal processless imaging printing plate comprising ink-repellent subbing layer and thermally sensitive imaging layer)

IT Polysiloxanes, preparation

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(planog. thermal processless imaging printing plate comprising ink-repellent subbing layer and thermally sensitive imaging layer)

IT Carbon black, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(planog. thermal processless imaging printing plate comprising ink-repellent subbing layer and thermally sensitive imaging layer)

IT Printing plates

(planog.; planog. thermal processless imaging printing plate comprising ink-repellent subbing layer and thermally sensitive imaging layer)

- IT Polyesters, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (support; planog. thermal processless imaging printing plate
 comprising ink-repellent subbing layer and **thermally
 sensitive** imaging layer)
- IT 199784-36-6P
 RL: PNU (Preparation, unclassified); TEM (Technical or engineered
 material use); PREP (Preparation); USES (Uses)
 (planog. thermal processless imaging printing plate comprising
 ink-repellent subbing layer and **thermally
 sensitive** imaging layer)
- IT 362515-25-1P
 RL: SPN (Synthetic preparation); TEM (Technical or engineered
 material use); PREP (Preparation); USES (Uses)
 (planog. thermal processless imaging printing plate comprising
 ink-repellent subbing layer and **thermally
 sensitive** imaging layer)
- IT 25038-59-9, Polyethylene terephthalate, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (support; planog. thermal processless imaging printing plate
 comprising ink-repellent subbing layer and **thermally
 sensitive** imaging layer)

L49 ANSWER 18 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:573173 HCAPLUS

DOCUMENT NUMBER: 135:144733

TITLE: **Lithographic printing
 plate master** suitable for IR laser
 heat mode digital exposure

INVENTOR(S): Maemoto, Kazuo; Kita, Nobuyuki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001213062	A2	20010807	JP 2000-23983	2000 0201

PRIORITY APPLN. INFO.: JP 2000-23983

2000
0201

AB The title lithog. printing plate master comprises an Al support, a hydrophilic layer comprised of colloid and photothermal conversion material, and a **heat-sensitive** layer, wherein the colloid is oxide or hydroxide of Be, Mg, Al, Si, Ti, B, Ge, Sn, Zr, Ir, V, Sb, or transition metal element. The **heat-sensitive** layer may contain polymer microparticles containing heat-reactive-functional groups or microcapsules containing heat-reactive-functional group-containing compds. A **water-insol.** polymer layer (or a heat-insulator layer) may be interposed between the Al support and the hydrophilic layer. The photothermal conversion material in the hydrophilic layer may be metal microparticles. The **lithog. printing plate master** shows good developability, high sensitivity, and excellent printability.

IT 9003-01-4, Poly(acrylic acid)

RL: TEM (Technical or engineered material use); USES (Uses)
 (in hydrophilic layer of **lithog. printing**)

plate master suitable for IR laser heat mode digital exposure)

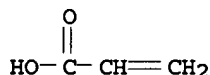
RN 9003-01-4 HCAPLUS

CN 2-Propenoic acid, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 79-10-7

CMF C3 H4 O2



IC ICM B41N001-14

ICS B41C001-055; G03F007-00; G03F007-11

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST lithog printing plate master
hydrophilic layer IR laser exposure

IT Polyvinyl butyrals

RL: TEM (Technical or engineered material use); USES (Uses)
(in heat-insulator layer of lithog. printing
plate master suitable for IR laser heat mode digital
exposure)

IT Lithographic plates

(lithog. printing plate master
suitable for IR laser heat mode digital exposure)

IT 289893-03-4

RL: TEM (Technical or engineered material use); USES (Uses)
(IR dye in heat-sensitive layer of
lithog. printing plate master
suitable for IR laser heat mode digital exposure)

IT 7440-22-4, Silver, uses

RL: TEM (Technical or engineered material use); USES (Uses)
(colloidal; in hydrophilic layer of lithog.
printing plate master suitable for IR laser
heat mode digital exposure)

IT 9003-01-4, Poly(acrylic acid) 26022-14-0,
Poly(2-hydroxyethyl acrylate)

RL: TEM (Technical or engineered material use); USES (Uses)
(in hydrophilic layer of lithog. printing
plate master suitable for IR laser heat mode digital
exposure)

IT 67-56-1, Methanol, uses 7631-86-9, Silica, uses

RL: TEM (Technical or engineered material use); USES (Uses)
(methanol silica sol in hydrophilic layer of lithog.
printing plate master suitable for IR laser
heat mode digital exposure)

IT 30528-89-3P, Allyl methacrylate-butyl methacrylate copolymer
RL: SPN (Synthetic preparation); TEM (Technical or engineered
material use); PREP (Preparation); USES (Uses)

(polymer microparticles in heat-sensitive
layer of lithog. printing plate
master suitable for IR laser heat mode digital exposure)

IT 9003-53-6, Polystyrene

RL: TEM (Technical or engineered material use); USES (Uses)
(polymer microparticles in heat-sensitive
layer of lithog. printing plate
master suitable for IR laser heat mode digital exposure)

IT 7429-90-5, Aluminum, uses

RL: TEM (Technical or engineered material use); USES (Uses)
(support of lithog. printing plate
master suitable for IR laser heat mode digital exposure)

L49 ANSWER 19 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2001:435467 HCAPLUS
 DOCUMENT NUMBER: 135:53518
 TITLE: Heat-sensitive lithographic
 printing plate precursor for
 IR-laser exposure
 INVENTOR(S): Kita, Nobuyuki; Maemoto, Kazuo
 PATENT ASSIGNEE(S): Japan
 SOURCE: U.S. Pat. Appl. Publ., 11 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2001003643	A1	20010614	US 2000-729350	2000 1205
US 6576397	B2	20030610		
JP 2001166459	A2	20010622	JP 1999-346317	1999 1206
PRIORITY APPLN. INFO.:			JP 1999-346317	A 1999 1206

AB A heat-sensitive lithog. printing plate precursor comprises a thermal polymerization layer, which contains an aqueous alkali-soluble polymer having addition polymerizable unsatd. bonds at the side chains and a thermal polymerization initiator, and a water-soluble overcoat layer, which has a water-soluble polymer and a compound capable of converting light into heat, on a support, which has a hydrophilic surface. The lithog. printing plate precursor, which contains thermal polymerizing materials, is handled in a bright room.

IT 90216-38-9P, Allyl methacrylate-methacrylic acid copolymer
 102772-82-7P, Methyl methacrylate-ethyl methacrylate-methacrylic acid-acrylonitrile copolymer
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (thermal polymerization layer in heat-sensitive lithog. printing plate precursor)

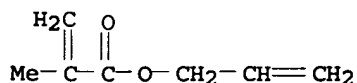
RN 90216-38-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-propenyl
 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 96-05-9

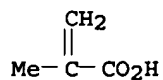
CMF C7 H10 O2



CM 2

CRN 79-41-4

CMF C4 H6 O2

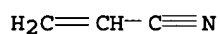


RN 102772-82-7 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with ethyl
 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and
 2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

CRN 107-13-1

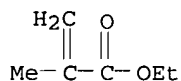
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CM 2

CRN 97-63-2

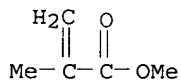
CMF C6 H10 O2



CM 3

CRN 80-62-6

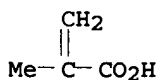
CMF C5 H8 O2



CM 4

CRN 79-41-4

CMF C4 H6 O2



IC ICM G03C007-00
 ICS G03C001-73; G03C001-77; G03F007-11
 INCL 430273100
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and
 Other Reprographic Processes)
 ST heat sensitive lithog printing plate
 precursor IR laser exposure
 IT Lithographic plates
 (heat-sensitive lithog. printing)

plate precursor for IR-laser exposure)
 IT Polymerization
 (thermal; heat-sensitive lithog.
 printing plate precursor for IR-laser
 exposure)
 IT 90216-38-9P, Allyl methacrylate-methacrylic acid copolymer
 102772-82-7P, Methyl methacrylate-ethyl
 methacrylate-methacrylic acid-acrylonitrile copolymer
 RL: SPN (Synthetic preparation); TEM (Technical or engineered
 material use); PREP (Preparation); USES (Uses)
 (thermal polymerization layer in heat-sensitive lithog.
 printing plate precursor)
 IT 103-01-5, N-Phenylglycine 147-14-8, Copper β -phthalocyanine
 150-76-5, p-Methoxyphenol 1707-68-2, 2-(o-Chlorophenyl)-4,5-
 diphenylimidazolyl dimer 4986-89-4, Pentaerythritol
 tetraacrylate 33943-20-3, Di-tert-butyl peroxyisophthalate
 77473-08-6, 3,3',4,4'-Tetrakis(tert-butylperoxycarbonyl)benzopheno
 ne
 RL: TEM (Technical or engineered material use); USES (Uses)
 (thermal polymerization layer in heat-sensitive lithog.
 printing plate precursor)

L49 ANSWER 20 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:875699 HCAPLUS

DOCUMENT NUMBER: 134:49238

TITLE: Thermal imaging composition and member
 containing sulfonated IR dye and methods of
 imaging and printing

INVENTOR(S): Fleming, James C.; Leon, Jeffrey W.; Stegman,
 David A.; Williams, Kevin W.

PATENT ASSIGNEE(S): Eastman Kodak Company, USA

SOURCE: U.S., 22 pp.
 CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6159657	A	20001212	US 1999-387021	1999 0831
DE 10042294	A1	20010412	DE 2000-10042294	2000 0829
JP 2001130159	A2	20010515	JP 2000-262836	2000 0831
US 6537730	B1	20030325	US 2000-652344	2000 0831
PRIORITY APPLN. INFO.:			US 1999-387021	A 1999 0831

AB An imaging member, such as a neg.-working printing plate or
 on-press cylinder, can be prepared with a hydrophilic imaging layer
 comprised of a heat-sensitive hydrophilic polymer having ionic
 moieties and an IR radiation sensitive dye having multiple sulfo
 groups. The heat-sensitive polymer and IR dye can be formulated
 in water or water-miscible solvents to provide highly
 thermal sensitive imaging compns. In the
 imaging member, the polymer reacts to provide increased
 hydrophobicity in areas exposed to energy that provides or

generates heat. For example, heat can be supplied by laser irradiation in the IR region of the electromagnetic spectrum. The heat-sensitive polymer is considered "switchable" in response to heat, and provides a lithog. image without wet processing.

IT 100356-86-3P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(thermal imaging composition and member containing sulfonated IR dye)

RN 100356-86-3 HCAPLUS

CN Benzenemethanaminium, ar-ethenyl-N,N,N-trimethyl-, chloride, polymer with 2-methyl-2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 26616-35-3

CMF C12 H18 N . Cl

CCI IDS



D1- CH=CH₂

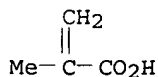
Me₃N⁺-CH₂-D1

● Cl⁻

CM 2

CRN 79-41-4

CMF C4 H6 O2



IC ICM G03C001-73

ICS G03C001-76; G03C001-77

INCL 430270100

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST lithog printing plates;
thermal sensitive polymer cyanine dye

IT Cyanine dyes

Lithographic plates

Thermal printing materials

(thermal imaging composition and member containing sulfonated IR dye)

IT 100356-86-3P 113995-59-8P 119261-38-0P 262283-81-8P

262283-83-0P 312963-46-5P 312963-48-7P 312963-49-8P

312963-50-1P 312963-51-2P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(thermal imaging composition and member containing sulfonated IR dye)

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L49 ANSWER 21 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:321469 HCAPLUS

DOCUMENT NUMBER: 132:341223

TITLE: Thermosensitive composition for
lithographic plate
preparation

INVENTOR(S): Morgan, David A.

PATENT ASSIGNEE(S): USA

SOURCE: U.S., 4 pp.
CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6063528	A	20000516	US 1997-859681	1997 0520

PRIORITY APPLN. INFO.: US 1997-859681

1997
0520

AB A thermosensitive composition comprises poly(acrylic acid), a metal salt of a long-chain fatty acid, such as silver behenate, an IR-absorbing agent, and modifiers, such as polymers and fillers. Both the water solubility and the affinity to water and oil of the thermosensitive composition are altered upon heating by imagewise exposure to an IR laser, and thus the thermosensitive composition is used for **lithog. plate** preparation

IT 9003-01-4, Poly(acrylic acid)
RL: TEM (Technical or engineered material use); USES (Uses)
(K 702; IR laser-**sensitive thermal** imaging
materials for **lithog. plate** preparation containing
silver behenate and)

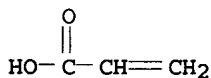
RN 9003-01-4 HCAPLUS

CN 2-Propenoic acid, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 79-10-7

CMF C3 H4 O2



IC ICM G03C003-00

INCL 430009000

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST thermosensitive compn polyacrylic acid silver behenate
lithog plate; IR laser thermosensitive compn
lithog plate

IT Polyvinyl butyrals

RL: TEM (Technical or engineered material use); USES (Uses)
(B 72; IR laser-**sensitive thermal** imaging
materials for **lithog. plate** preparation containing

poly(acrylic acid), silver behenate and)

IT **Lithographic plates**
 (IR laser-sensitive thermal imaging
 materials containing poly(acrylic acid) and silver behenate for
 preparation of)

IT Carbon black, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (IR laser-sensitive thermal imaging
 materials for lithog. plate preparation containing
 poly(acrylic acid), silver behenate and)

IT Recording materials
 (thermal, IR laser-sensitive; containing
 poly(acrylic acid) and silver behenate for lithog.
 plate preparation)

IT 2489-05-6, Silver behenate 3507-99-1, Silver stearate
 RL: TEM (Technical or engineered material use); USES (Uses)
 (IR laser-sensitive thermal imaging
 materials for lithog. plate preparation containing
 poly(acrylic acid) and)

IT 354-33-6, FC125 7631-86-9, Colloidal silica, uses 9002-89-5,
 Poly(vinyl alcohol) 9002-93-1, Triton X100 243847-83-8, ADS830
 243847-84-9, WS 830
 RL: TEM (Technical or engineered material use); USES (Uses)
 (IR laser-sensitive thermal imaging
 materials for lithog. plate preparation containing
 poly(acrylic acid), silver behenate and)

IT 9003-01-4, Poly(acrylic acid)
 RL: TEM (Technical or engineered material use); USES (Uses)
 (K 702; IR laser-sensitive thermal imaging
 materials for lithog. plate preparation containing
 silver behenate and)

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L49 ANSWER 22 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:317209 HCAPLUS

DOCUMENT NUMBER: 132:341221

TITLE: Heat-mode sensitive
 image-forming element for manufacturing
 positive-working printing plate

INVENTOR(S): Verschueren, Eric; Vermeersch, Joan; Van
 Damme, Marc; Hauquier, Guido; Van Aert, Huub

PATENT ASSIGNEE(S): AGFA Gevaert N.V., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.
 CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000137321	A2	20000516	JP 1999-299427	1999 1021
US 6489079	B1	20021203	US 1999-391421	1999 0908
PRIORITY APPLN. INFO.:			EP 1998-203609	A 1998 1026
			US 1998-112068P	P 1998

1214

AB In the title image-forming element possessing a 1st layer containing an aqueous **alkaline** solution-soluble polymer and an IR sensitive, **alkaline** developing solution-impermeable uppermost layer on the same side of a lithog. base having a hydrophilic surface, the 1st layer and the uppermost layer may be 1 of the same layer and the uppermost layer contains 0.5-500 mg/m2 of ≥ 1 block copolymer. The element shows broader development latitude, high resolution, and improved phys. and chem resistance.

IT **113889-78-4**, Methacrylic acid-methyl methacrylate block copolymer
 RL: DEV (Device component use); USES (Uses)
 (MA 1007; heat mode-type **lithog. plate** containing alkali-soluble polymer and uppermost layer containing block copolymer)

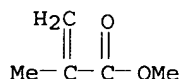
RN **113889-78-4** HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with methyl 2-methyl-2-propenoate, block (9CI) (CA INDEX NAME)

CM 1

CRN 80-62-6

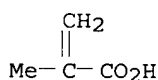
CMF C5 H8 O2



CM 2

CRN 79-41-4

CMF C4 H6 O2



IC ICM G03F007-00
 ICS B41N001-14; G03F007-032; G03F007-11

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 38

ST heat mode **lithog plate**; block copolymer
 uppermost layer **lithog plate**

IT Isoprene-styrene rubber
 RL: DEV (Device component use); USES (Uses)
 (block, Kraton D; heat mode-type **lithog. plate** containing alkali-soluble polymer and uppermost layer containing block copolymer)

IT Styrene-butadiene rubber, uses
 RL: DEV (Device component use); USES (Uses)
 (block, triblock, Cariflex TR 1102; heat mode-type **lithog. plate** containing alkali-soluble polymer and uppermost layer containing block copolymer)

IT **Lithographic plates**
 (heat mode-type **lithog. plate** containing alkali-soluble polymer and uppermost layer containing block copolymer)

IT Carbon black, uses
 RL: DEV (Device component use); USES (Uses)
 (heat mode-type **lithog. plate** containing

- alkali-soluble polymer and uppermost layer containing block copolymer)
- IT Phenolic resins, uses
 RL: DEV (Device component use); USES (Uses)
 (novolak; heat mode-type lithog. plate
 containing alkali-soluble polymer and uppermost layer containing block
 copolymer)
- IT 148277-56-9, Butyl methacrylate-ethylene oxide block copolymer
 RL: DEV (Device component use); USES (Uses)
 (BE 1010; heat mode-type lithog. plate
 containing alkali-soluble polymer and uppermost layer containing block
 copolymer)
- IT 113889-78-4, Methacrylic acid-methyl methacrylate block
 copolymer
 RL: DEV (Device component use); USES (Uses)
 (MA 1007; heat mode-type lithog. plate
 containing alkali-soluble polymer and uppermost layer containing block
 copolymer)
- IT 108967-97-1, Ethylene oxide-methyl methacrylate block copolymer
 RL: DEV (Device component use); USES (Uses)
 (ME 1010; heat mode-type lithog. plate
 containing alkali-soluble polymer and uppermost layer containing block
 copolymer)
- IT 107311-90-0, Ethylene oxide-styrene block copolymer
 RL: DEV (Device component use); USES (Uses)
 (SE 0720; heat mode-type lithog. plate
 containing alkali-soluble polymer and uppermost layer containing block
 copolymer)
- IT 9004-70-0, Nitrocellulose 100346-90-5, ALNOVOL SPN 452
 110351-66-1D, Ethylene-styrene block copolymer, sulfonated
 191617-94-4, KRATON Liquid L 2203 204277-94-1, KRATON Liquid EKP
 207 204277-98-5, KRATON Liquid L 1302 220971-33-5, ST 798
 268559-67-7, VP-SE 1010A
 RL: DEV (Device component use); USES (Uses)
 (heat mode-type lithog. plate containing
 alkali-soluble polymer and uppermost layer containing block copolymer)
- IT 105729-79-1
 RL: DEV (Device component use); USES (Uses)
 (isoprene-styrene rubber, block, Kraton D; heat mode-type
 lithog. plate containing alkali-soluble polymer and
 uppermost layer containing block copolymer)
- IT 105729-79-1, Isoprene-styrene block copolymer
 RL: DEV (Device component use); USES (Uses)
 (rubber; heat mode-type lithog. plate
 containing alkali-soluble polymer and uppermost layer containing block
 copolymer)
- IT 106107-54-4 694491-73-1
 RL: DEV (Device component use); USES (Uses)
 (styrene-butadiene rubber, block, triblock, Cariflex TR 1102;
 heat mode-type lithog. plate containing
 alkali-soluble polymer and uppermost layer containing block copolymer)

L49 ANSWER 23 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:106803 HCAPLUS

DOCUMENT NUMBER: 132:158946

TITLE: Direct imaging-type lithographic
 original plate and manufacture of
 lithographic printing
 plate

INVENTOR(S): Goto, Kazuki; Tabata, Kenichi; Ikeda, Norimasa

PATENT ASSIGNEE(S): Toray Industries, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000043437	A2	20000215	JP 1999-141448	1999 0521

PRIORITY APPLN. INFO.:

JP 1998-147482 A

1998
0528

AB The title lithog. original plate comprises a substrate coated with a heat-sensitive layer having a thickness of $\leq 5 \mu\text{m}$ and containing a light-heat-converting substance and a thermosetting compound and then with a film-forming polymer layer having a thickness of $\geq 1 \mu\text{m}$ and an O permeability of $\leq 30 \text{ cm}^3\text{-cm-m-2-24 h-1-atm-1}$. A lithog. original plate, comprising a substrate laminated successively with a hydrophilic swelling layer having a thickness of $\leq 5 \mu\text{m}$, a water absorption of 1-50 g/m², and a water swelling rate of 10-2000%, the heat-sensitive layer, and the film-forming polymer layer, is imagewise exposed to a laser beam to cure the exposed areas of the heat-sensitive layer and the polymer layer is then peeled off to remove the unexposed areas of the heat-sensitive layer together with the layer to expose the non-image areas of the hydrophilic swelling layer for forming ink-repellent non-image areas. The lithog. original plate can be treated easily in platemaking and the resulting printing plate shows improved image reproducibility and printing durability.

IT 24980-58-3, Acrylic acid-vinyl acetate copolymer

RL: DEV (Device component use); USES (Uses)

(hydrophilic swelling layer; lithog. plate

having heat-sensitive layer containing light-heat-converting material and thermosetting compound and oxygen permeability-controlled layer)

RN 24980-58-3 HCAPLUS

CN 2-Propenoic acid, polymer with ethenyl acetate (9CI) (CA INDEX NAME)

CM 1

CRN 108-05-4

CMF C4 H6 O2

AcO-CH=CH₂

CM 2

CRN 79-10-7

CMF C3 H4 O2

$$\begin{array}{c} \text{O} \\ || \\ \text{HO}-\text{C}-\text{CH}=\text{CH}_2 \end{array}$$

IC ICM B41N001-14

ICS G03F007-00; G03F007-004; G03F007-038

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38

- ST lithog plate hydrophilic swelling layer; heat sensitive layer thermosetting compd; oxygen permeability controlled layer lithog plate
- IT Styrene-butadiene rubber, uses
RL: DEV (Device component use); USES (Uses)
(JSR 0548, hydrophilic swelling layer; lithog. plate having heat-sensitive layer containing light-heat-converting material and thermosetting compound and oxygen permeability-controlled layer)
- IT Carbon black, uses
RL: DEV (Device component use); USES (Uses)
(Sohn Black; lithog. plate having heat-sensitive layer containing light-heat-converting material and thermosetting compound and oxygen permeability-controlled layer)
- IT Aminoplasts
Epoxy resins, uses
RL: DEV (Device component use); USES (Uses)
(heat-sensitive layer; lithog. plate having heat-sensitive layer containing light-heat-converting material and thermosetting compound and oxygen permeability-controlled layer)
- IT Lithographic plates
(lithog. plate having heat-sensitive layer containing light-heat-converting material and thermosetting compound and oxygen permeability-controlled layer)
- IT Cellophane
(oxygen permeability-controlled layer; lithog. plate having heat-sensitive layer containing light-heat-converting material and thermosetting compound and oxygen permeability-controlled layer)
- IT Phenolic resins, uses
RL: DEV (Device component use); USES (Uses)
(resol, heat-sensitive layer; lithog. plate having heat-sensitive layer containing light-heat-converting material and thermosetting compound and oxygen permeability-controlled layer)
- IT 9011-05-6, Beckamine P 138 24979-70-2, Maruka Lyncur PHM C 25068-38-6, Epikote 828 32435-46-4, Kayamer PM 2 54112-23-1, DM 30 60453-84-1, 80MFA 65098-71-7, Denacol EX 421 116675-61-7, Kayasorb IR 820 122985-78-8, Tesazin 3073-60 172451-68-2, Sumilac PC 1 176087-11-9, Gohsenol KL 05
RL: DEV (Device component use); USES (Uses)
(heat-sensitive layer; lithog. plate having heat-sensitive layer containing light-heat-converting material and thermosetting compound and oxygen permeability-controlled layer)
- IT 24980-58-3, Acrylic acid-vinyl acetate copolymer
RL: DEV (Device component use); USES (Uses)
(hydrophilic swelling layer; lithog. plate having heat-sensitive layer containing light-heat-converting material and thermosetting compound and oxygen permeability-controlled layer)
- IT 9003-20-7D, Polyvinyl acetate, hydrolyzed
RL: DEV (Device component use); USES (Uses)
(lithog. plate having heat-sensitive layer containing light-heat-converting material and thermosetting compound and oxygen permeability-controlled layer)
- IT 9002-85-1, Poly(vinylidene chloride) 9002-89-5, Gohsenol N 300 24937-78-8, Ethylene-vinyl acetate copolymer 122391-72-4, Gohsenol GM 14 211107-61-8, Barrialon LF
RL: DEV (Device component use); USES (Uses)
(oxygen permeability-controlled layer; lithog. plate having heat-sensitive layer containing light-heat-converting material and thermosetting compound and oxygen permeability-controlled layer)
- IT 9003-55-8
RL: DEV (Device component use); USES (Uses)
(styrene-butadiene rubber, JSR 0548, hydrophilic swelling

layer; lithog. plate having heat-sensitive
layer containing light-heat-converting material and thermosetting
compound and oxygen permeability-controlled layer)

L49 ANSWER 24 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:819308 HCAPLUS

DOCUMENT NUMBER: 132:71387

TITLE: Thermal imaging material for
lithographic plate
preparation

INVENTOR(S): Shimazu, Ken-ichi; Patel, Jayanti; Saraiya,
Shashikant; Merchant, Nishith; Savariar-Hauck,
Celin; Timpe, Hans-joachim; McCullough,
Christopher D.

PATENT ASSIGNEE(S): Kodak Polychrome Graphics Llc, USA

SOURCE: PCT Int. Appl., 25 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 6

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9967097	A2	19991229	WO 1999-US12689	1999 0608
W: JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6352812	B1	20020305	US 1999-301866	1999 0429
EP 1011970	A2	20000628	EP 1999-928429	1999 0608
EP 1011970	B1	20060208		
R: ES, IT, NL, SE				
JP 2002518715	T2	20020625	JP 2000-555763	1999 0608
EP 1506856	A2	20050216	EP 2004-78162	1999 0608
EP 1506856	A3	20050330		
R: BE, DE, ES, FR, GB, IT, NL, SE				
EP 1506857	A2	20050216	EP 2004-78163	1999 0608
EP 1506857	A3	20050330		
R: BE, DE, ES, FR, GB, IT, NL, SE				
PRIORITY APPLN. INFO.:			US 1998-90300P	P 1998 0623
			US 1999-301866	A 1999 0429
			EP 1999-928429	A3 1999 0608
			WO 1999-US12689	W 1999

0608

AB A thermal imaging material which can be imaged by imagewise exposure with an IR laser or a thermal head and suited for lithog. plate preparation comprises a hydrophilic substrate and a two-layer coating. The first layer of the coating comprises an aqueous solution-developable polymer mixture containing a photothermal conversion material which is contiguous to the hydrophilic substrate. The second layer of the coating comprises one or more non-aqueous solution-soluble polymers which are soluble or dispersible in a solvent which does not dissolve the first layer. The material is exposed with an IR laser or a thermal head and upon development of the imaged material in an aqueous solution, the exposed portions are removed exposing hydrophilic substrate surfaces receptive to conventional aqueous fountain solns. The unexposed portions contain ink-receptive image areas. The second layer may also contain a photothermal conversion material.

IT 9004-38-0, Cellulose acetate phthalate
 RL: TEM (Technical or engineered material use); USES (Uses)
 (IR-laser-sensitive thermal imaging
 materials for lithog. plate preparation with
 polymer layers containing)

RN 9004-38-0 HCAPLUS

CN Cellulose, acetate hydrogen 1,2-benzenedicarboxylate (9CI) (CA
 INDEX NAME)

CM 1

CRN 9004-34-6

CMF Unspecified

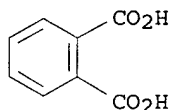
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 88-99-3

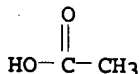
CMF C8 H6 O4



CM 3

CRN 64-19-7

CMF C2 H4 O2



IT 58748-38-2

RL: TEM (Technical or engineered material use); USES (Uses)
 (National Starch 28-2930; IR-laser-sensitive
 thermal imaging materials for lithog.
 plate preparation with polymer layers containing)

RN 58748-38-2 HCAPLUS

CN Neodecanoic acid, ethenyl ester, polymer with 2-butenic acid and

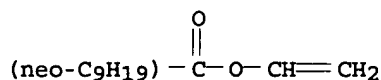
ethenyl acetate (9CI) (CA INDEX NAME)

CM 1

CRN 51000-52-3

CMF C12 H22 O2

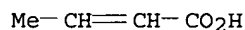
CCI IDS



CM 2

CRN 3724-65-0

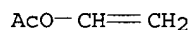
CMF C4 H6 O2



CM 3

CRN 108-05-4

CMF C4 H6 O2



IC ICM B41M

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST IR laser thermal imaging material lithog. plate
prepn

IT Lithographic plates

(IR-laser-sensitive thermal imaging materials with two polymer layers on hydrophilic substrates for preparation of)

IT Thermal printing materials

(IR-laser-sensitive; with two polymer layers on hydrophilic substrates for lithog. plate preparation)

IT Fluoropolymers, uses

RL: TEM (Technical or engineered material use); USES (Uses)
(MP 1100; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)

IT Phenolic resins, uses

RL: TEM (Technical or engineered material use); USES (Uses)
(PN 430, SD 140; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)

IT Carbon black, uses

RL: TEM (Technical or engineered material use); USES (Uses)
(Special Black 250; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)

IT Polyvinyl acetals

RL: TEM (Technical or engineered material use); USES (Uses)
(carboxy-containing, T 71; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)

- IT Polyvinyl acetals
 RL: TEM (Technical or engineered material use); USES (Uses)
 (dimethylmaleimido-containing, AK 128; IR-laser-sensitive
 thermal imaging materials for lithog.
 plate preparation with polymer layers containing)
- IT Recording materials
 (thermal, IR-laser-sensitive; with two
 polymer layers on hydrophilic substrates for lithog.
 plate preparation)
- IT 9011-14-7, Poly(methyl methacrylate)
 RL: TEM (Technical or engineered material use); USES (Uses)
 (A 21; IR-laser-sensitive thermal imaging
 materials for lithog. plate preparation with
 polymer layers containing)
- IT 9003-53-6, Polystyrene 9004-38-0, Cellulose acetate
 phthalate 9004-70-0, E950 9010-88-2, Acryloid B-82
 25608-33-7, Acryloid B-66 27029-76-1, PD 140A 58229-85-9,
 Acryloid B-44 73546-46-0D, reaction products with
 mesitylenesulfonic acid 106209-33-0, SMA-1000 134127-48-3
 253270-56-3, Carboset 500 253272-47-8, Nega 107
 RL: TEM (Technical or engineered material use); USES (Uses)
 (IR-laser-sensitive thermal imaging
 materials for lithog. plate preparation with
 polymer layers containing)
- IT 9002-84-0
 RL: TEM (Technical or engineered material use); USES (Uses)
 (MP 1100; IR-laser-sensitive thermal
 imaging materials for lithog. plate preparation
 with polymer layers containing)
- IT 58748-38-2
 RL: TEM (Technical or engineered material use); USES (Uses)
 (National Starch 28-2930; IR-laser-sensitive
 thermal imaging materials for lithog.
 plate preparation with polymer layers containing)
- IT 9003-35-4, SD 140
 RL: TEM (Technical or engineered material use); USES (Uses)
 (PN 430, SD 140; IR-laser-sensitive thermal
 imaging materials for lithog. plate preparation
 with polymer layers containing)
- IT 58206-31-8
 RL: TEM (Technical or engineered material use); USES (Uses)
 (Scripset 540, Scripset 550; IR-laser-sensitive
 thermal imaging materials for lithog.
 plate preparation with polymer layers containing)

L49 ANSWER 25 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1999:796061 HCAPLUS
 DOCUMENT NUMBER: 132:42854
 TITLE: Offset printing plate having a high durability
 INVENTOR(S): Hauck, Gerhard; Jarek, Mathias; Kesselman,
 Jerome Philip; Pappas, Socrates Peter
 PATENT ASSIGNEE(S): Kodak Polychrome Graphics G.m.b.H., Germany
 SOURCE: PCT Int. Appl., 73 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 9964930	A1	19991216	WO 1999-DE1673	1999 0607

W: JP, US

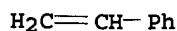
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU,
MC, NL, PT, SE
DE 19825244 A1 19991216 DE 1998-19825244 1998
0605
EP 1002258 A1 20000524 EP 1999-938142 1999
0607
R: DE, FR, GB, IT, NL
JP 2002517801 T2 20020618 JP 2000-553867 1999
0607
US 6238831 B1 20010529 US 2000-493837 2000
0128
PRIORITY APPLN. INFO.: DE 1998-19825244 A 1998
0605
WO 1999-DE1673 W 1999
0607

AB Offset printing plates having a high durability are composed of a
suitable support coated with a pos.- or neg.-working, or
electrophotog.-working radiation-sensitive composition containing an alkali
solution-insol. thermoplastic polymer that is incorporated into the
composition using a solvent in which both the radiation-
sensitive polymer and the thermoplastic polymer
are soluble and, if necessary, a second solvent in which the
radiation-sensitive polymer is soluble but not the thermoplastic
polymer and which is less volatile than the first solvent. Upon
drying the photosensitive layer contains homogeneously distributed
polymer particles which give the resulting exposed and developed
plate improved printing durability. Thermoplastics useful in the
process are polystyrene, acrylonitrile-styrene polymers,
polycarbonate, poly(Me methacrylate) PVC, polymethylpentene,
acrylonitrile-butadiene-styrene copolymer and polysulfone.

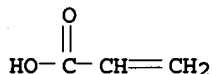
IT 24980-16-3
RL: TEM (Technical or engineered material use); USES (Uses)
(particles; offset printing plate with printing layer having
high durability)
RN 24980-16-3 HCAPLUS
CN 2-Propenoic acid, polymer with ethenylbenzene and 2-propenenitrile
(9CI) (CA INDEX NAME)
CM 1
CRN 107-13-1
CMF C3 H3 N



CM 2
CRN 100-42-5
CMF C8 H8



CM 3

CRN 79-10-7
CMF C3 H4 O2

IC ICM G03F007-023
ICS G03F007-032; G03F007-021; G03F007-004
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT **Lithographic plates**
(offset; with **printing** layer having high durability)
IT 9002-86-2, Polyvinyl chloride 9003-56-9, Lustran 452
9011-14-7, Plexigum m914 9016-80-2, Polymethylpentene
24936-68-3, Makrolon 3108, uses **24980-16-3** 25135-51-7,
Udel P1800
RL: TEM (Technical or engineered material use); USES (Uses)
(particles; offset printing plate with printing layer having
high durability)
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L49 ANSWER 26 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:249036 HCAPLUS

DOCUMENT NUMBER: 130:259582

TITLE: Method for making lithographic
plate from heat-
sensitive imaging elementINVENTOR(S): Deroover, Geert; Vermeersch, Joan; Van Damme,
Marc; Inventief, Pietertje

PATENT ASSIGNEE(S): Agfa-Gevaert N.V., Belg.

SOURCE: Eur. Pat. Appl., 12 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
EP 908305	A1	19990414	EP 1998-203120	1998 0916
EP 908305	B1	20011128		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 11194483	A2	19990721	JP 1998-282730	1998 1005

PRIORITY APPLN. INFO.: EP 1997-203133 A
1997
1008

AB According to the present invention there is provided a method for making a lithog. plate comprising the steps of
(a) preparing a heat-sensitive imaging element having on a lithog. plate base with a hydrophilic surface a first layer including a polymer, sol
. in an aqueous alkaline solution, and a top layer in which the top

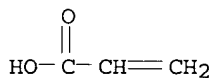
layer is sensitive to an IR radiation and is unpenetrable by an alkaline developer containing SiO₂ as an silicate, (b) exposing imagewise the **heat-sensitive** imaging element to an IR radiation, and (c) developing the imagewise exposed **heat-sensitive** imaging element with the alkaline developer so that the exposed areas of the top layer and the underlying areas of the first layer are dissolved and the unexposed areas of the first layer remain undissolved characterized in that the top layer includes an IR-absorbing dye.

IT 9003-01-4, Poly(acrylic acid) 25087-26-7,
Poly(methacrylic acid)
RL: TEM (Technical or engineered material use); USES (Uses)
(IR-sensitive thermal recording materials
for lithog. plate preparation containing)

RN 9003-01-4 HCAPLUS
CN 2-Propenoic acid, homopolymer (9CI) (CA INDEX NAME)

CM 1

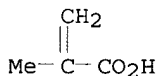
CRN 79-10-7
CMF C3 H4 O2



RN 25087-26-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 79-41-4
CMF C4 H6 O2



IC ICM B41C001-10
ICS B41M005-36
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST lithog plate heat sensitive
imaging material
IT Lithographic plates
(IR-sensitive thermal recording materials
for preparation of)
IT Thermal printing materials
(IR-sensitive; for preparation of lithog.
plates)
IT Phenolic resins, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(novolak; IR-sensitive thermal recording
materials for lithog. plate preparation containing)
IT Recording materials
(thermal, IR-sensitive; for preparation of
lithog. plates)
IT 9003-01-4, Poly(acrylic acid) 25087-26-7,
Poly(methacrylic acid) 221661-30-9
RL: TEM (Technical or engineered material use); USES (Uses)
(IR-sensitive thermal recording materials
for lithog. plate preparation containing)

IT 1344-09-8, Sodium silicate
 RL: TEM (Technical or engineered material use); USES (Uses)
 (in alkaline developers for IR-sensitive thermal
 recording materials for lithog. plate
 preparation)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L49 ANSWER 27 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:184195 HCAPLUS

DOCUMENT NUMBER: 130:215895

TITLE: Thermal lithographic
 printing plate

INVENTOR(S): Nguyen, My T.; Merchant, Nishith; Shimazu,
 Ken-ichi; Pappas, Peter S.; Hallman, Robert
 W.; Kesselman, Jerome P.; Savariar-Hauck,
 Celin; Hauck, Gerhard; Timpe, Hans-Joachim

PATENT ASSIGNEE(S): Kodak Polychrome Graphics LLC, USA

SOURCE: PCT Int. Appl., 22 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9911458	A1	19990311	WO 1998-US16886	1998 0814
W: CA, CN, JP RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6060217	A	20000509	US 1997-922190	1997 0902
EP 939698	A1	19990908	EP 1998-939401	1998 0814
EP 939698	B1	20030924		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
AT 250497	E	20031015	AT 1998-939401	1998 0814
ES 2206975	T3	20040516	ES 1998-939401	1998 0814
PRIORITY APPLN. INFO.:				US 1997-922190 A
				1997 0902
WO 1998-US16886				W
				1998 0814

AB A method for directly imaging a lithog. printing
 surface using IR radiation without the requirement of pre- or
 post-UV exposure or heat treatment employs a printing plate which
 contains a support with a hydrophilic surface overcoated with an
 imaging layer. The imaging layer contains at least one polymer
 having bonded pendent groups which are hydroxy, carboxylic acid,
 tert-butyl-oxycarbonyl, sulfonamide, amide, nitrile, urea, or
 combinations thereof as well as an IR-absorbing compound The

imaging layer may contain a second polymer which has bonded pendent groups which are 1,2-naphthoquinone diazide, hydroxy, carboxylic acid, sulfonamide, hydroxymethyl amide, alkoxyethyl amide, nitrile, maleimide, urea, or combinations thereof. The imaging layer may also contain a visible absorption dye, a solubility inhibiting agent, or both. In practice, the imaging layer is imagewise exposed to IR radiation to produce exposed image areas in the imaged layer which have transient solubility in aqueous alkaline developing solution so that solubility is gradually lost over a period of time until the imaged areas become as insol. as non-imaged areas. Within a short time period of the imaging exposure, the imaged layer is developed with an aqueous alkaline developing solution to form the lithog. printing surface. In this method, the IR radiation preferably is laser radiation which is digitally controlled.

IT 9004-38-0, Cellulose acetate phthalate 26284-14-0
 , Methacrylic acid-butyl methacrylate copolymer 55854-33-6
 , Butyl methacrylate-2-hydroxyethyl methacrylate-methacrylic acid-styrene copolymer 56793-67-0, Methacrylic acid-butyl methacrylate-methyl methacrylate-styrene copolymer 58748-38-2, Resyn 28-2930 68778-01-8, Ethyl methacrylate-2-hydroxyethyl methacrylate-methacrylic acid-styrene copolymer 208046-03-1, Methacrylic acid-N-methoxymethylmethacrylamide-2-phenylethyl methacrylate copolymer
 RL: TEM (Technical or engineered material use); USES (Uses)
 (IR laser-sensitive thermal recording materials for lithog. plate preparation containing)

RN 9004-38-0 HCAPLUS
 CN Cellulose, acetate hydrogen 1,2-benzenedicarboxylate (9CI) (CA INDEX NAME)

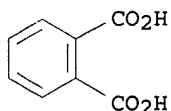
CM 1

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

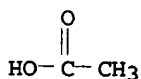
CM 2

CRN 88-99-3
 CMF C8 H6 O4



CM 3

CRN 64-19-7
 CMF C2 H4 O2

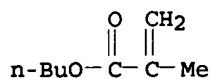


RN 26284-14-0 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with butyl

2-methyl-2-propenoate (9CI) (CA INDEX NAME)

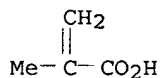
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CRN 97-88-1
CMF C8 H14 O2



CM 2

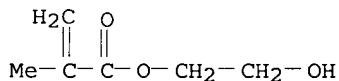
CRN 79-41-4
CMF C4 H6 O2



RN 55854-33-6 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with butyl
2-methyl-2-propenoate, ethenylbenzene and 2-hydroxyethyl
2-methyl-2-propenoate (9CI) (CA INDEX NAME)

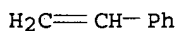
CM 1

CRN 868-77-9
CMF C6 H10 O3



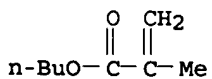
CM 2

CRN 100-42-5
CMF C8 H8



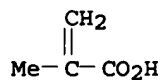
CM 3

CRN 97-88-1
CMF C8 H14 O2



CM 4

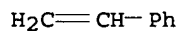
CRN 79-41-4
CMF C4 H6 O2



RN 56793-67-0 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with butyl
2-methyl-2-propenoate, ethenylbenzene and methyl
2-methyl-2-propenoate (9CI) (CA INDEX NAME)

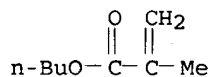
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CRN 100-42-5
CMF C8 H8



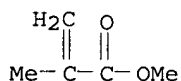
CM 2

CRN 97-88-1
CMF C8 H14 O2



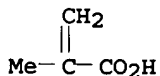
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CRN 80-62-6
CMF C5 H8 O2



CM 4

CRN 79-41-4
CMF C4 H6 O2

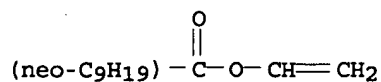


RN 58748-38-2 HCAPLUS
CN Neodecanoic acid, ethenyl ester, polymer with 2-butenic acid and
ethenyl acetate (9CI) (CA INDEX NAME)

CM 1

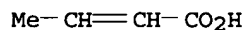
CRN 51000-52-3

CMF C12 H22 O2
CCI IDS



CM 2

CRN 3724-65-0
CMF C4 H6 O2



CM 3

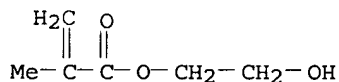
CRN 108-05-4
CMF C4 H6 O2



RN 68778-01-8 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene, ethyl
2-methyl-2-propenoate and 2-hydroxyethyl 2-methyl-2-propenoate
(9CI) (CA INDEX NAME)

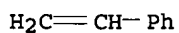
CM 1

CRN 868-77-9
CMF C6 H10 O3



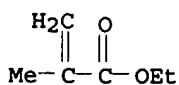
CM 2

CRN 100-42-5
CMF C8 H8



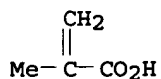
CM 3

CRN 97-63-2
CMF C6 H10 O2



CM 4

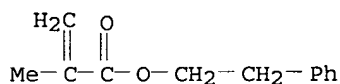
CRN 79-41-4
CMF C4 H6 O2



RN 208046-03-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with N-(methoxymethyl)-2-methyl-2-propenamide and 2-phenylethyl 2-methyl-2-propenoate (9CI)
(CA INDEX NAME)

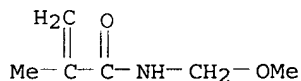
CM 1

CRN 3683-12-3
CMF C12 H14 O2



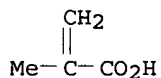
CM 2

CRN 3644-12-0
CMF C6 H11 N O2



CM 3

CRN 79-41-4
CMF C4 H6 O2



IC ICM B41C001-10
ICS B41M005-36; G03F007-004; G03F007-023
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST thermal lithog plate IR laser
naphthoquinonediazide
IT Phenolic resins, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(Bu ether; IR laser-sensitive thermal recording materials for lithog. plate preparation containing)
IT Lithographic plates
(IR laser-sensitive thermal recording)

- materials containing naphthoquinonediazides for preparation of)
- IT Thermal printing materials
(IR laser-sensitive; containing naphthoquinonediazides for preparation of lithog. plates)
- IT Recording materials
(thermal, IR laser-sensitive; containing naphthoquinonediazides for preparation of lithog. plates)
- IT 139301-16-9, CD 1012
RL: TEM (Technical or engineered material use); USES (Uses)
(CD 1012; IR laser-sensitive thermal recording materials for lithog. plate preparation containing)
- IT 2185-86-6, Victoria Blue R 2390-59-2, Ethyl violet 2390-60-5, Victoria Blue BO 5496-71-9, ADS 1060A-IR 9003-35-4D, Phenol-formaldehyde polymer, Bu ether 9004-38-0, Cellulose acetate phthalate 9016-83-5, SD 140A 14233-37-5, Solvent Blue 36 17354-14-2, Solvent Blue 35 24979-70-2, Poly(4-hydroxystyrene) 24979-71-3, 4-Hydroxystyrene-methyl methacrylate copolymer 26284-14-0, Methacrylic acid-butyl methacrylate copolymer 26323-01-3 27029-76-1, PD 140A 55854-33-6, Butyl methacrylate-2-hydroxyethyl methacrylate-methacrylic acid-styrene copolymer 56793-67-0, Methacrylic acid-butyl methacrylate-methyl methacrylate-styrene copolymer 58748-38-2, Resyn 28-2930 68778-01-8, Ethyl methacrylate-2-hydroxyethyl methacrylate-methacrylic acid-styrene copolymer 161003-85-6, 2-Hydroxyethyl methacrylate-vinylphenol copolymer 181658-68-4, GP 7550 187683-87-0, Epolite IV 62B 208046-03-1, Methacrylic acid-N-methoxymethylmethacrylamide-2-phenylethyl methacrylate copolymer 220970-43-4, Epolite III 178 220970-44-5, Uravar FN 6 220970-76-3, Spectra IR 830A 220971-24-4, PMP 65 220971-25-5, PMP 92 220971-33-5, ST 798
RL: TEM (Technical or engineered material use); USES (Uses)
(IR laser-sensitive thermal recording materials for lithog. plate preparation containing)
- IT 220937-57-5, Polychrome 3000
RL: TEM (Technical or engineered material use); USES (Uses)
(Polychrome 3000; IR laser-sensitive thermal recording materials for lithog. plate preparation containing)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 28 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:184194 HCAPLUS
DOCUMENT NUMBER: 130:244478
TITLE: Chemical processing-free lithographic printing plate
INVENTOR(S): Nguyen, My T.; Saraiya, Shashikant; Shimazu, Ken-ichi; Pappas, S. Peter; Natsu, Omkar J.; Hallmann, Robert
PATENT ASSIGNEE(S): Kodak Polychrome Graphics Co. Ltd., USA
SOURCE: PCT Int. Appl., 23 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9911457	A1	19990311	WO 1998-US16885	1998

0814

W: CA, CN, JP
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU,
MC, NL, PT, SE

EP 1015244 A1 20000705 EP 1998-939400

1998

0814

EP 1015244 B1 20020313

R: DE, FR, GB

PRIORITY APPLN. INFO.:

US 1997-922714

A

1997

0902

WO 1998-US16885

W

1998

0814

AB A lithog. printing plate is prepared using a thermosensitive material which requires no chemical development to remove areas of the imaged thermosensitive material. The thermosensitive material comprises a sheet substrate, a porous, aluminosilicate hydrophilic layer on the sheet substrate, and a porous, thermally reactive imaging layer on the hydrophilic layer. The imaging layer is imaged using an IR laser to produce an imaged layer. The imaged layer is treated with a conditioner liquid to produce a porous, planar, lithog. printing surface. By this method, the thermosensitive material can be digitally imaged by an IR laser so that the imaged areas become receptive to inks and the non-image areas repel ink after simple treatment with a conditioner such as a fountain solution containing an amphoteric surfactant.

IT 26284-14-0, Butyl methacrylate-methacrylic acid copolymer 55854-33-6, Butyl methacrylate-2-hydroxyethyl methacrylate-methacrylic acid-styrene copolymer 56793-67-0, Butyl methacrylate-methacrylic acid-methyl methacrylate-styrene copolymer 68778-01-8, Ethyl methacrylate-2-hydroxyethyl methacrylate-methacrylic acid-styrene copolymer 208046-03-1, N-Methoxymethylmethacrylamide-methacrylic acid-2-phenylethyl methacrylate copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(IR laser-sensitive thermosensitive materials for lithog. plate preparation containing)

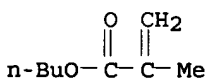
RN 26284-14-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 97-88-1

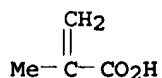
CMF C8 H14 O2



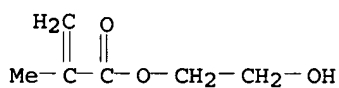
CM 2

CRN 79-41-4

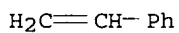
CMF C4 H6 O2



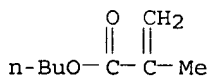
RN 55854-33-6 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with butyl
 2-methyl-2-propenoate, ethenylbenzene and 2-hydroxyethyl
 2-methyl-2-propenoate (9CI) (CA INDEX NAME)
 CM 1
 CRN 868-77-9
 CMF C6 H10 O3



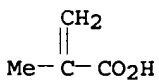
CM 2
 CRN 100-42-5
 CMF C8 H8



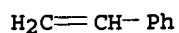
CM 3
 CRN 97-88-1
 CMF C8 H14 O2



CM 4
 CRN 79-41-4
 CMF C4 H6 O2

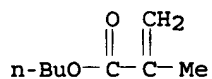


RN 56793-67-0 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with butyl
 2-methyl-2-propenoate, ethenylbenzene and methyl
 2-methyl-2-propenoate (9CI) (CA INDEX NAME)
 CM 1
 CRN 100-42-5
 CMF C8 H8



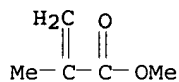
CM 2

CRN 97-88-1
CMF C8 H14 O2



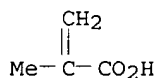
CM 3

CRN 80-62-6
CMF C5 H8 O2



CM 4

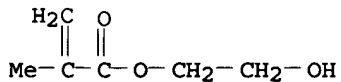
CRN 79-41-4
CMF C4 H6 O2



RN 68778-01-8 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene, ethyl
2-methyl-2-propenoate and 2-hydroxyethyl 2-methyl-2-propenoate
(9CI) (CA INDEX NAME)

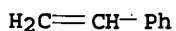
CM 1

CRN 868-77-9
CMF C6 H10 O3

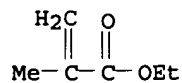


CM 2

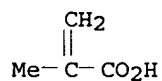
CRN 100-42-5
CMF C8 H8



CM 3

CRN 97-63-2
CMF C6 H10 O2

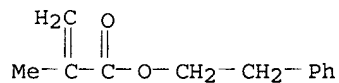
CM 4

CRN 79-41-4
CMF C4 H6 O2

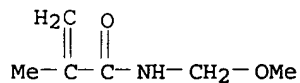
RN 208046-03-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with N-(methoxymethyl)-2-methyl-2-propenamide and 2-phenylethyl 2-methyl-2-propenoate (9CI)
(CA INDEX NAME)

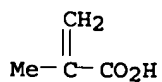
CM 1

CRN 3683-12-3
CMF C12 H14 O2

CM 2

CRN 3644-12-0
CMF C6 H11 N O2

CM 3

CRN 79-41-4
CMF C4 H6 O2IC ICM B41C001-10
ICS B41N001-00; B41M005-36

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST IR laser thermosensitive material lithog plate

IT Aluminosilicates, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(IR laser-sensitive thermosensitive materials for lithog. plate preparation containing)

IT Thermal printing materials
(IR laser-sensitive; for lithog. plate preparation without chemical processing)

IT Lithographic plates
(chemical processing-free IR laser-sensitive thermosensitive materials for preparation of)

IT Recording materials
(thermal, IR laser-sensitive; for lithog. plate preparation without chemical processing)

IT 221136-64-7, ACR 1290
RL: TEM (Technical or engineered material use); USES (Uses)
(ACR 1290; IR laser-sensitive thermosensitive materials for lithog. plate preparation containing)

IT 139301-16-9
RL: TEM (Technical or engineered material use); USES (Uses)
(CD 1012; IR laser-sensitive thermosensitive materials for lithog. plate preparation containing)

IT 11114-17-3, FC430 17354-14-2, Solvent Blue 35 24979-70-2, Poly(4-hydroxystyrene) 24979-71-3, 4-Hydroxystyrene-methyl methacrylate copolymer 26284-14-0, Butyl methacrylate-methacrylic acid copolymer 26355-01-1, 2-Hydroxyethyl methacrylate-methyl methacrylate copolymer 55854-33-6, Butyl methacrylate-2-hydroxyethyl methacrylate-methacrylic acid-styrene copolymer 56793-67-0, Butyl methacrylate-methacrylic acid-methyl methacrylate-styrene copolymer 66218-25-5, Cyclohexyl methacrylate-2-hydroxyethyl methacrylate copolymer 68778-01-8, Ethyl methacrylate-2-hydroxyethyl methacrylate-methacrylic acid-styrene copolymer 161003-85-6, 2-Hydroxyethyl methacrylate-vinylphenol copolymer 208046-03-1, N-Methoxymethylmethacrylamide-methacrylic acid-2-phenylethyl methacrylate copolymer 220970-76-3, Spectra IR 830A 221136-69-2 221314-33-6, GPRI 7550 221314-35-8, Spectra IR 1060A
RL: TEM (Technical or engineered material use); USES (Uses)
(IR laser-sensitive thermosensitive materials for lithog. plate preparation containing)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 29 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:480904 HCAPLUS

DOCUMENT NUMBER: 127:115324

TITLE: A heat-sensitive imaging element and a method for producing lithographic plates therewith

INVENTOR(S): Van Damme, Marc; Vermeersch, Joan

PATENT ASSIGNEE(S): Agfa-Gevaert Naamloze Vennootschap, Belg.

SOURCE: Eur. Pat. Appl., 14 pp.
CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 779161	A1	19970618	EP 1995-203494	1995 1214
EP 779161	B1	20000705		
R: DE, FR, GB				
US 6010817	A	20000104	US 1996-762441	1996 1209
JP 09185162	A2	19970715	JP 1996-351789	1996 1212
JP 2901235	B2	19990607		
PRIORITY APPLN. INFO.:			EP 1995-203494	A 1995 1214

AB According to the present invention there is provided a heat-sensitive imaging element comprising a support having a hydrophilic surface contiguous to the hydrophilic surface of a support a hydrophobic heat-sensitive composition comprising a hydrophobic polymer binder, a compound capable of converting light into heat, and a reactive compound or mixture of reactive compds. present in an amount which surpasses the absorptive capacity of the hydrophobic polymer binder for the compound or mixture of compds., the reactive compound or mixture of compds. being reactive under the influence of heat or under the influence of a reagent which is obtained by decomposition of a heat-sensitive compound one or more thermo-adhesive layers, at least one of the thermo-adhesive layers being contiguous to the hydrophobic heat-sensitive composition

IT 25085-39-6, Acrylic acid-butadiene-styrene copolymer
 RL: TEM (Technical or engineered material use); USES (Uses)
 (lithog. plate manufacture using laser-sensitive thermal imaging materials containing)

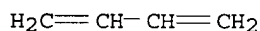
RN 25085-39-6 HCAPLUS

CN 2-Propenoic acid, polymer with 1,3-butadiene and ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 106-99-0

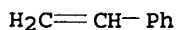
CMF C4 H6



CM 2

CRN 100-42-5

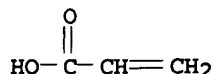
CMF C8 H8



CM 3

CRN 79-10-7

CMF C3 H4 O2



IC ICM B41M005-34
ICS B41C001-10; B41M005-40; B41M005-36
CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST thermal imaging compn lithog plate;
thermoadhesive compn lithog plate prep
IT Aminoplasts
RL: TEM (Technical or engineered material use); USES (Uses)
(lithog. plate manufacture using laser-sensitive thermal imaging materials containing)
IT Recording materials
(thermal, thermoadhesive; for lithog. plate manufacture)
IT Lithographic plates
(thermoadhesive imaging compns. for manufacture of)
IT 557-75-5, Vinyl alcohol, uses 681-84-5D, Tetramethylorthosilicate, hydrolyzed 9003-08-1, Cymel 301 9052-61-3, Butadiene-vinyltoluene copolymer 23235-61-2, Ditrimehylolpropane 25085-39-6, Acrylic acid-butadiene-styrene copolymer 60506-81-2, Dipentaerythritol pentaacrylate 74227-35-3, Degacure KI 85
RL: TEM (Technical or engineered material use); USES (Uses)
(lithog. plate manufacture using laser-sensitive thermal imaging materials containing)

L49 ANSWER 30 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

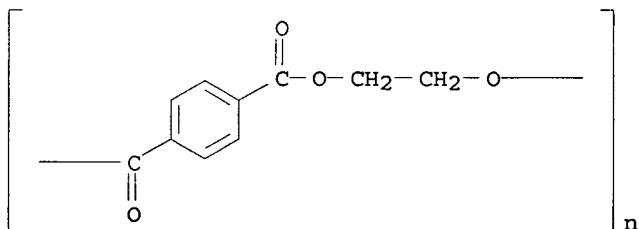
ACCESSION NUMBER: 1997:457208 HCAPLUS
DOCUMENT NUMBER: 127:88088
TITLE: Donor elements and processes for thermal dye transfer by laser
INVENTOR(S): Blanchet-Fincher, Graciela Beatriz
PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA
SOURCE: PCT Int. Appl., 69 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9720252	A1	19970605	WO 1996-US18970	1996 1127
W: JP				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 864118	A1	19980916	EP 1996-942074	1996 1127
EP 864118	B1	20000816		
R: DE, FR, GB, IT				
JP 2002517163	T2	20020611	JP 1997-520641	1996 1127
JP 3421054	B2	20030630		
PRIORITY APPLN. INFO.:			US 1995-564546	A 1995 1129

US 1996-757717 A
1996
1126

WO 1996-US18970 W
1996
1127

- AB Donor elements, assemblages, and associated processes are described for use in a laser-induced thermal transfer process, said elements comprising in the order listed (a) at least one flexible ejection layer comprising a first polymer having a decomposition temperature T1 and characteristic glass transition temps. of Tg0 and Tg1 for unplasticized and plasticized polymer samples, resp., wherein the tensile modulus of the flexible ejection layer(s) structure is less than or equal to 2.5 Gigapascals, (b) at least one heating layer, (c) at least one transfer layer comprising (i) a second polymer having a decomposition temperature T2, wherein $T2 \geq (T1 + 100)$ and (ii) an imageable component, with the proviso in some embodiments that an inflexible support substrate is absent in the donor element at least during the thermal transfer process or in other embodiments that a support is absent in the donor element at least during the thermal transfer process. These donor elements are useful in proofing and lithog. printing applications. Assemblages made with these donor elements are useful for fabrication of photomasks on various photohardenable materials, including flexog. printing plates and photoresists. These photomasks are useful in creating a relief image with a photosensitive element, such as flexog. printing plate or a photoresist.
- IT 25038-59-9, Poly(ethylene terephthalate), uses
RL: TEM (Technical or engineered material use); USES (Uses)
(laser-sensitive dye donor elements for thermal transfer process containing)
- RN 25038-59-9 HCAPLUS
- CN Poly(oxy-1,2-ethanediyloxycarbonyl-1,4-phenylenecarbonyl) (9CI)
(CA INDEX NAME)



- IC ICM G03C001-498
ICS G03F001-12
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
- IT **Thermal-transfer printing**
(laser-sensitive dye donor elements for)
- IT **Lithographic plates**
Photomasks (lithographic masks)
Photoresists
(laser-sensitive dye donor elements for thermal transfer process for preparation of)
- IT 84-62-8, Diphenyl phthalate 347-46-6, 4-Diazo-N,N-diethylaniline fluoroborate 6427-66-3, p-Azidobenzoic acid 9002-86-2, Poly(vinyl chloride) 9002-86-2D, Poly(vinyl chloride), chlorinated 9011-14-7, Poly(methyl methacrylate)

25038-59-9, Poly(ethylene terephthalate), uses
 25750-84-9, Butyl acrylate-ethylene copolymer 151853-78-0,
 Elvacite AB 1030
 RL: TEM (Technical or engineered material use); USES (Uses)
 (laser-sensitive dye donor elements for thermal transfer
 process containing)

L49 ANSWER 31 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1995:993000 HCAPLUS

DOCUMENT NUMBER: 124:160426

TITLE: **Lithographic plate**
 utilizing silver complex diffusion-transfer
 process

INVENTOR(S): Haino, Kozo; Miura, Taketoshi; Yamano, Genzo

PATENT ASSIGNEE(S): Mitsubishi Paper Mills Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

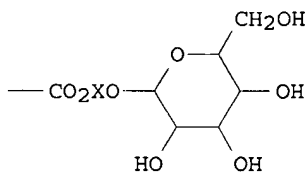
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 07253671	A2	19951003	JP 1994-45402	1994 0316
PRIORITY APPLN. INFO.:			JP 1994-45402	1994 0316

GI



Q

AB The plate comprises a support successively coated with a Ag halide emulsion layer and a layer containing phys. developing nuclei and a polymeric binder (CH₂CR₁Q)l[CH₂CR₂(CONH₂)]mAn [R₁, R₂ = H, lower alkyl; X = divalent linking group; A = ethylenic unsatd. monomer; l = 10-100; m = 0-90; Q = I; n = 100-(l+m) mol%]. The plate shows high **sensitivity** and good **thermal** stability and gives stain-free images.

IT 173369-77-2

RL: DEV (Device component use); USES (Uses)
 (silver salt diffusion-transfer **lithog. plate**
 containing glucosylamino polymer binder)

RN 173369-77-2 HCAPLUS

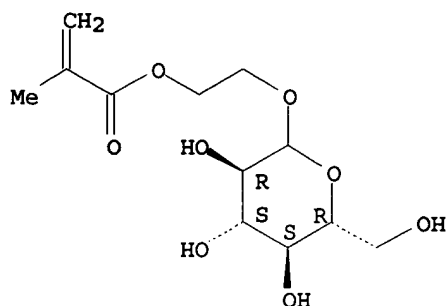
CN D-Glucopyranoside, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl,
 polymer with 2-propenamide and 2-propenoic acid (9CI) (CA INDEX
 NAME)

CM 1

CRN 132153-62-9

CMF C12 H20 O8

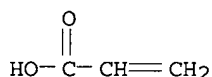
Absolute stereochemistry.



CM 2

CRN 79-10-7

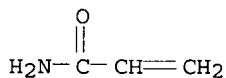
CMF C3 H4 O2



CM 3

CRN 79-06-1

CMF C3 H5 N O



IC ICM G03F007-07
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 38
 ST silver complex diffusion transfer lithog
 printing; glucosyl amino polymer binder lithog
 plate
 IT Lithographic plates
 (silver salt diffusion-transfer lithog. plate
 containing glucosylamino polymer binder)
 IT 132153-84-5 173369-77-2 173369-78-3 173369-79-4
 173369-80-7 173369-81-8
 RL: DEV (Device component use); USES (Uses)
 (silver salt diffusion-transfer lithog. plate
 containing glucosylamino polymer binder)
 IT 132153-69-6P
 RL: DEV (Device component use); IMF (Industrial manufacture); PREP
 (Preparation); USES (Uses)
 (silver salt diffusion-transfer lithog. plate
 containing glucosylamino polymer binder)

L49 ANSWER 32 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1993:158009 HCAPLUS
 DOCUMENT NUMBER: 118:158009

TITLE: Curable, heat-activatable transfer toner
 INVENTOR(S): Held, Robert Paul
 PATENT ASSIGNEE(S): du Pont de Nemours, E. I., and Co., USA
 SOURCE: Eur. Pat. Appl., 14 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 501397	A1	19920902	EP 1992-103117	1992 0225
EP 501397 R: DE, FR, GB, IT	B1	19981111		
US 5240814	A	19930831	US 1991-661986	1991 0227
CA 2061672	AA	19920828	CA 1992-2061672	1992 0221
JP 05072726	A2	19930326	JP 1992-41739	1992 0227
JP 2697991	B2	19980119		
PRIORITY APPLN. INFO.:			US 1991-661986	A 1991 0227

OTHER SOURCE(S): MARPAT 118:158009

AB The title toner comprises an organic thermoplastic polymer containing acid groups, a plasticizer, and a crosslinking agent selected from Mn+(RCOCHCO-R1)n-j.Xj [M = metal; R, R1 = alkyl, aryl; n = valency of metal; j = 0-(n-1); X = OH, Cl, F, sulfate, nitrate, chlorate, phosphate, acetate, alkyl carboxylate, aryl carboxylate], Mn+(R)n, Mn+(CO2R1)n, and Mn+(OR2)n [R, R1, R2 = hydrocarbyl; M = metal; n = valency of metal (>2)]. A process for forming an image with the above toner comprises applying the toner on a latent image, heating, contacting with a receptor, separating the element, and heating the separated image. The toner has prolonged tack and is nonelectroscopic.

IT 25322-25-2, Acrylic acid-methyl methacrylate copolymer
 52831-04-6 65616-75-3

RL: USES (Uses)

(heat-sensitive toners containing)

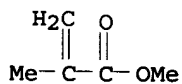
RN 25322-25-2 HCAPLUS.

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

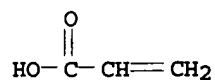
CRN 80-62-6

CMF C5 H8 O2



CM 2

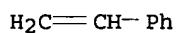
CRN 79-10-7
CMF C3 H4 O2



RN 52831-04-6 HCAPLUS
CN 2-Propenoic acid, polymer with ethenylbenzene and
(1-methylethenyl)benzene (9CI) (CA INDEX NAME)

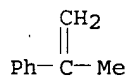
CM 1

CRN 100-42-5
CMF C8 H8



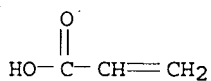
CM 2

CRN 98-83-9
CMF C9 H10



CM 3

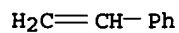
CRN 79-10-7
CMF C3 H4 O2



RN 65616-75-3 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene and
(1-methylethenyl)benzene (9CI) (CA INDEX NAME)

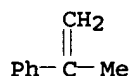
CM 1

CRN 100-42-5
CMF C8 H8



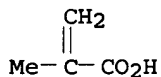
CM 2

CRN 98-83-9
CMF C9 H10



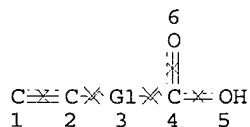
CM 3

CRN 79-41-4
CMF C4 H6 O2



IC ICM G03F007-28
CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST heat **sensitive** toner **thermog**; nonelectroscopic toner prolonged tack
IT **Lithographic plates**
(preparation of, heat-sensitive toners for)
IT 25322-25-2, Acrylic acid-methyl methacrylate copolymer
52831-04-6 65616-75-3
RL: USES (Uses)
(heat-sensitive toners containing)

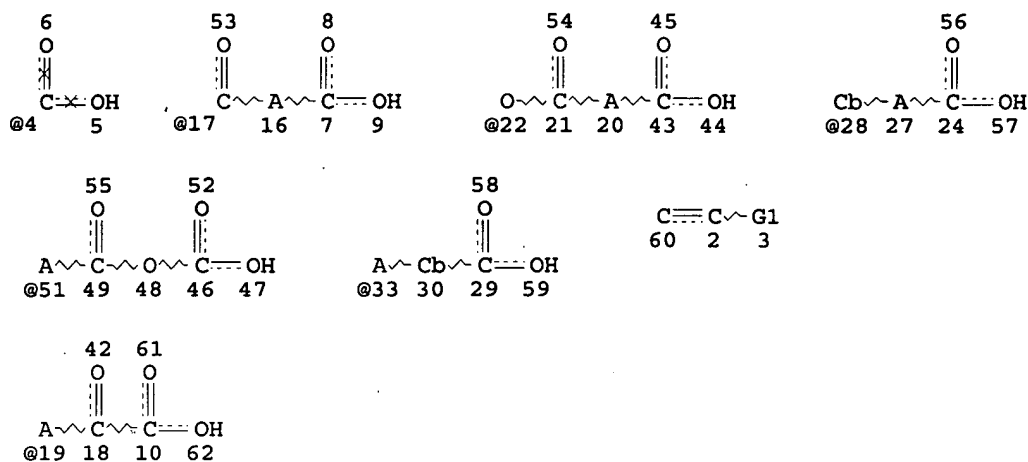
=> => d que stat 164
L5 5651 SEA FILE=HCAPLUS ABB=ON PLU=ON LITHOG?(3A) PRINT?(3A) P
LATE
L20 STR



REP G1=(0-1) A
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE
L21 SCR 2043
L23 188824 SEA FILE=REGISTRY SSS FUL L20 AND L21
L31 6675 SEA FILE=HCAPLUS ABB=ON PLU=ON ALKALINE?(5A) SOLUBLE
L34 14097 SEA FILE=HCAPLUS ABB=ON PLU=ON LITHOG?(5A) PLATE
L35 8756 SEA FILE=HCAPLUS ABB=ON PLU=ON LITHOG?(5A) PRINT?
L39 57182 SEA FILE=HCAPLUS ABB=ON PLU=ON (WATER? OR H2O OR
AQUEOUS) (5A) INSOL?
L56 STR



VAR G1=4/17/19/28/33/22/51

NODE ATTRIBUTES:

NSPEC IS RC AT 17
 CONNECT IS E2 RC AT 16
 CONNECT IS E2 RC AT 19
 CONNECT IS E2 RC AT 20
 CONNECT IS E2 RC AT 51
 DEFAULT MLEVEL IS ATOM
 GGCAT IS UNS AT 28
 GGCAT IS UNS AT 30
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 42

STEREO ATTRIBUTES: NONE

L58 119401 SEA FILE=REGISTRY SUB=L23 SSS FUL L56
 L59 152835 SEA FILE=HCAPLUS ABB=ON PLU=ON L58
 L60 2886 SEA FILE=HCAPLUS ABB=ON PLU=ON L59 AND (L5 OR L34 OR L35)
 L63 118 SEA FILE=HCAPLUS ABB=ON PLU=ON L60 AND L39
 L64 21 SEA FILE=HCAPLUS ABB=ON PLU=ON L63 AND L31

=> d l64 1-21 ibib abs hitstr hitind

L64. ANSWER 1 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:32221 HCAPLUS

DOCUMENT NUMBER: 144:78015

TITLE: Platemaking of silver salt diffusion-transfer lithographic plate using developer containing polymer

INVENTOR(S): Takagami, Yuji; Fujioka, Hajime

PATENT ASSIGNEE(S): Mitsubishi Paper Mills, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	

JP 2006011207 A2 20060112 JP 2004-190972

2004
0629

PRIORITY APPLN. INFO.: JP 2004-190972

2004
0629

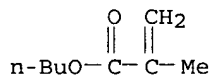
AB The plate, comprising Al support coated with a phys. development nucleus layer and a Ag halide emulsion layer, is processed by (1) a developer containing a polymer **insol. in water** and **soluble in alkaline** solution, and (2) washing water. The plate shows good water resistance, printing durability, and ink receptivity.

IT 26284-14-0, Butyl methacrylate-methacrylic acid copolymer
163255-38-7, Benzyl methacrylate-butyl methacrylate-methacrylic acid copolymer
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(platemaking of silver salt diffusion-transfer lithog
. plate using developer containing polymer)

RN 26284-14-0 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with butyl
2-methyl-2-propenoate (9CI) (CA INDEX NAME)

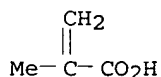
CM 1

CRN 97-88-1
CMF C8 H14 O2



CM 2

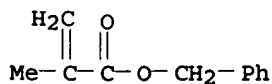
CRN 79-41-4
CMF C4 H6 O2



RN 163255-38-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with butyl
2-methyl-2-propenoate and phenylmethyl 2-methyl-2-propenoate (9CI)
(CA INDEX NAME)

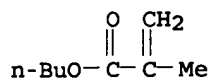
CM 1

CRN 2495-37-6
CMF C11 H12 O2



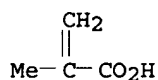
CM 2

CRN 97-88-1
CMF C8 H14 O2



CM 3

CRN 79-41-4
CMF C4 H6 O2



CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST silver salt diffusion transfer lithog plate
developer; alkali soluble polymer developer lithog plate
IT Lithographic plates
(diffusion-transfer; platemaking of silver salt diffusion-transfer lithog. plate using developer containing polymer)
IT 26284-14-0, Butyl methacrylate-methacrylic acid copolymer
163255-38-7, Benzyl methacrylate-butyl methacrylate-methacrylic acid copolymer
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(platemaking of silver salt diffusion-transfer lithog plate using developer containing polymer)

L64 ANSWER 2 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:10481 HCAPLUS
DOCUMENT NUMBER: 144:78000
TITLE: Lithographic printing
plate precursors for direct IR-laser platemaking
INVENTOR(S): Tashiro, Hiroshi
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 45 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006003658	A2	20060105	JP 2004-180117	2004 0617
PRIORITY APPLN. INFO.:			JP 2004-180117	2004 0617

AB The precursor comprises, on a support, ≥2-tier pos.-working imaging layers each layer containing an IR absorbent and increasing solubility to aqueous alkaline developers upon IR laser exposure, wherein the

imaging layer nearest the support has a disperse system and contains ≥ 2 kinds of polymers. At least one of the polymers constituting the disperse system is prepared by using maleimide (derivative) monomers. Preferably, the matrix phases are made of water-insol. polymers being soluble to aqueous alkaline solns., while the disperse phases contain compds. generating acids or radicals upon IR radiation or compds. changing their solubility to bases upon IR radiation. The imaging layer show high discrimination property in development to give printing face with high printing durability.

IT 743430-28-6P, Acrylamide-acrylonitrile-methacrylic acid-N-phenylmaleimide copolymer 743430-29-7P 871941-56-9P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(in bottommost imaging layer showing disperse system;
lithog. printing plate precursor
for direct IR-laser platemaking)

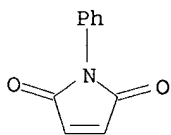
RN 743430-28-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 1-phenyl-1H-pyrrole-2,5-dione, 2-propenamide and 2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

CRN 941-69-5

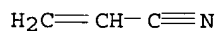
CMF C10 H7 N O2



CM 2

CRN 107-13-1

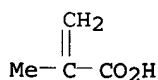
CMF C3 H3 N



CM 3

CRN 79-41-4

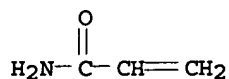
CMF C4 H6 O2



CM 4

CRN 79-06-1

CMF C3 H5 N O



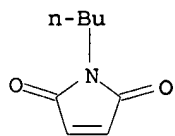
RN 743430-29-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 1-butyl-1H-pyrrole-2,5-dione, 2-cyanoethyl 2-propenoate and 2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 2973-09-3

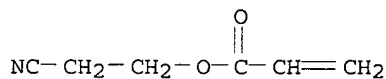
CMF C8 H11 N O2



CM 2

CRN 106-71-8

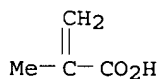
CMF C6 H7 N O2



CM 3

CRN 79-41-4

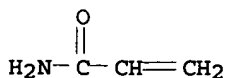
CMF C4 H6 O2



CM 4

CRN 79-06-1

CMF C3 H5 N O

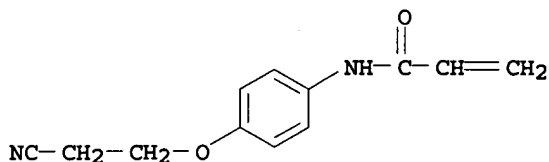


RN 871941-56-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 1-butyl-1H-pyrrole-2,5-dione and N-[4-(2-cyanoethoxy)phenyl]-2-propenamide (9CI) (CA INDEX NAME)

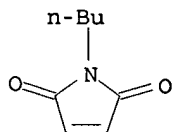
CM 1

CRN 871941-55-8
CMF C12 H12 N2 O2



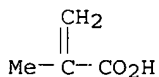
CM 2

CRN 2973-09-3
CMF C8 H11 N O2



CM 3

CRN 79-41-4
CMF C4' H6 O2



- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
- ST pos IR platemaking lithog plate maleimide copolymer; dispersion system lithog plate precursor maleimide copolymer; acrylonitrile maleimide copolymer pos IR platemaking lithog plate
- IT Polyoxyalkylenes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(acrylic, graft, in imaging layers showing disperse system; lithog. printing plate precursor for direct IR-laser platemaking)
- IT Phenolic resins, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(novolak, cresol-based, in upper imaging layer showing disperse system; lithog. printing plate precursor for direct IR-laser platemaking)
- IT Phenolic resins, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(novolak, in bottommost imaging layer showing disperse system; lithog. printing plate precursor for direct IR-laser platemaking)
- IT 134127-48-3
RL: TEM (Technical or engineered material use); USES (Uses)
(IR absorbent, in imaging layers showing disperse system; lithog. printing plate precursor for direct IR-laser platemaking)

- IT 743430-28-6P, Acrylamide-acrylonitrile-methacrylic acid-N-phenylmaleimide copolymer 743430-29-7P 871941-56-9P 871941-57-0P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (in bottommost imaging layer showing disperse system; lithog. printing plate precursor for direct IR-laser platemaking)
- IT 100347-03-3, m-Cresol-p-cresol-formaldehyde-2,3-xyleneol copolymer
 RL: TEM (Technical or engineered material use); USES (Uses)
 (in bottommost imaging layer showing disperse system; lithog. printing plate precursor for direct IR-laser platemaking)
- IT 657429-11-3
 RL: TEM (Technical or engineered material use); USES (Uses)
 (in imaging layers showing disperse system; lithog. printing plate precursor for direct IR-laser platemaking)
- IT 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer 35464-74-5, m-Cresol-p-cresol-formaldehyde-phenol copolymer 146115-88-0 451462-69-4
 RL: TEM (Technical or engineered material use); USES (Uses)
 (in upper imaging layer showing disperse system; lithog. printing plate precursor for direct IR-laser platemaking)

L64 ANSWER 3 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1355520 HCAPLUS
 DOCUMENT NUMBER: 144:97717
 TITLE: Modified polymers and their use in the production of lithographic printing plate precursors
 INVENTOR(S): Savariar-Hauck, Celin; Monk, Alan S. V.; Ullrich, Rene
 PATENT ASSIGNEE(S): Kodak Polychrome Graphics GmbH, Germany
 SOURCE: PCT Int. Appl., 44 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005123412	A1	20051229	WO 2005-EP6426	2005 0615
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 102004029501	A1	20060112	DE 2004-102004029501	2004 0618

PRIORITY APPLN. INFO.: DE 2004-102004029501A

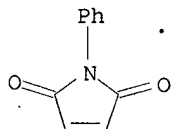
2004
0618

- AB The invention relates to radiation-sensitive neg. metalworking element comprising (a) a substrate with a hydrophilic surface and (b) a layer on the hydrophilic surface of the substrate, wherein said layer comprises a modified polymer obtainable by reacting (i) a polymer with -COOH, -SO₃H, -PO₃H₂ and/or -PO₄H₂ in the side chains, wherein the polymer is **soluble** in aqueous alk . solns. and the solubility is not changed by IR radiation, and (ii) a salt with an inorg. or organic cation, wherein the modified polymer is **soluble** in aqueous **alkaline** solns. and the solubility is not changed by IR radiation, said layer being **soluble** in **aqueous alkaline** developer, but is rendered **insol.** in **aqueous** alkaline developer by IR radiation. The polymer provides printing plate precursor of improved solvent resistance without compromising radiation sensitivity.
- IT 321963-43-3P, Methacrylic acid-N-phenylmaleimide-methacrylamide copolymer 847254-96-ODP, N-Methoxymethylmethacrylamide-methacrylamide-N-phenylmaleimide-methacrylic acid copolymer, reaction product with IR-dye
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (modified polymers and their use in production of lithog. printing plate precursors)
- RN 321963-43-3 HCAPLUS
- CN 2-Propenoic acid, 2-methyl-, polymer with 2-methyl-2-propenamide and 1-phenyl-1H-pyrrole-2,5-dione (9CI) (CA INDEX NAME)

CM 1

CRN 941-69-5

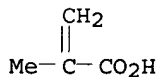
CMF C10 H7 N O2



CM 2

CRN 79-41-4

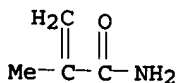
CMF C4 H6 O2



CM 3

CRN 79-39-0

CMF C4 H7 N O



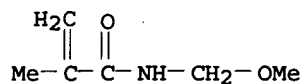
RN 847254-96-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with N-(methoxymethyl)-2-

methyl-2-propenamide, 2-methyl-2-propenamide and
1-phenyl-1H-pyrrole-2,5-dione (9CI) (CA INDEX NAME)

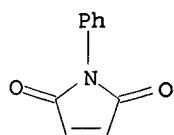
CM 1

CRN 3644-12-0
CMF C6 H11 N O2



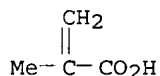
CM 2

CRN 941-69-5
CMF C10 H7 N O2



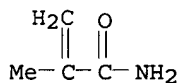
CM 3

CRN 79-41-4
CMF C4 H6 O2



CM 4

CRN 79-39-0
CMF C4 H7 N O



IC ICM B41M005-36
ICS B41C001-10
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and
Other Reprographic Processes)
Section cross-reference(s): 35
ST **polymer lithog printing plate**
precursor solvent resistance
IT Photoimaging materials
(modified polymers and their use in production of **lithog.**
printing plate precursors)
IT **Lithographic plates**
(precursors, photosensitive; modified polymers and their use in
production of **lithog. printing plate**
precursors)

IT 64-19-7DP, Acetic acid, reaction product with polymer 75-07-0DP, Acetaldehyde, reaction product with polyvinyl alc. 123-72-8DP, Butyraldehyde, reaction product with polyvinyl alc. 619-66-9DP, 4-Formylbenzoic acid, reaction product with polyvinyl alc. 2390-60-5DP, Victoria Blue BO, reaction product with polymer 9002-89-5DP, Mowiol 10-98, acetalated, reaction product with IR-dye 52229-50-2DP, Gantrez AN 119, acetalated, reaction product with IR-dye 134127-48-3DP, Trump Dye, reaction mixture with polymer with carboxylic group 321963-43-3P, Methacrylic acid-N-phenylmaleimide-methacrylamide copolymer 847254-96-0DP, N-Methoxymethylmethacrylamide-methacrylamide-N-phenylmaleimide-methacrylic acid copolymer, reaction product with IR-dye
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (modified polymers and their use in production of lithog. printing plate precursors)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L64 ANSWER 4 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:519467 HCAPLUS

DOCUMENT NUMBER: 143:50728

TITLE: Package of laminated lithographic printing original plate

INVENTOR(S): Maemoto, Kazuo

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 30 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005153908	A2	20050616	JP 2003-391982	2003 1121

PRIORITY APPLN. INFO.: JP 2003-391982

2003
1121

AB The plate comprises a support having (A) an under recording layer containing a resin insol. in water and sol. in aqueous alkaline solution, and (B) an upper recording layer, whose soluble to an aqueous alkaline soln increases by light exposure, containing the resin and a development inhibitor, in which A and/or B contains an IR absorbent. The package is a packed laminate of ≥200 the lithog. plates fixed on a carrying material. Deterioration on transportation is prevented and the plate gives clear images without defects and dots.

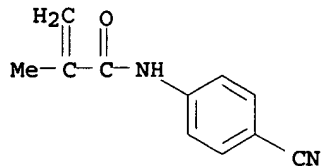
IT 811438-65-0P, Acrylonitrile-p-cyanophenyl methacrylamide-methacrylic acid-methyl methacrylate copolymer
 RL: IMP (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (recording layer containing; package of laminated lithog. printing original plate)

RN 811438-65-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with N-(4-cyanophenyl)-2-methyl-2-propenamide, 2-methyl-2-propenoic acid and 2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

CRN 90617-02-0
CMF C11 H10 N2 O



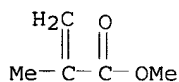
CM 2

CRN 107-13-1
CMF C3 H3 N



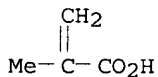
CM 3

CRN 80-62-6
CMF C5 H8 O2



CM 4

CRN 79-41-4
CMF C4 H6 O2



IT 593266-64-9

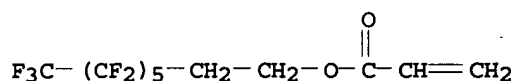
RL: TEM (Technical or engineered material use); USES (Uses)
(recording layer containing; package of laminated lithog.
printing original plate)

RN 593266-64-9 HCAPLUS

CN 2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl
ester, polymer with methyloxirane block polymer with oxirane
mono-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 17527-29-6
CMF C11 H7 F13 O2



CM 2

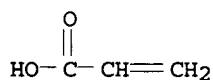
CRN 112783-64-9

CMF (C3 H6 O . C2 H4 O)x . C3 H4 O2

CM 3

CRN 79-10-7

CMF C3 H4 O2



CM 4

CRN 106392-12-5

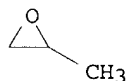
CMF (C3 H6 O . C2 H4 O)x

CCI PMS

CM 5

CRN 75-56-9

CMF C3 H6 O



CM 6

CRN 75-21-8

CMF C2 H4 O



IC ICM B65D071-02

ICS B65D071-04; B65D085-00; G03F007-00; G03F007-004; G03F007-11

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST **lithog plate** laminate package; IR absorbent
alkali soluble resin **lithog plate**

IT Phenolic resins, uses

RL: TEM (Technical or engineered material use); USES (Uses)
(novolak, recording layer containing; package of laminated
lithog. printing original plate)

IT Containers

Lithographic plates
(package of laminated **lithog. printing**
original plate)

IT 504387-13-7
 RL: TEM (Technical or engineered material use); USES (Uses)
 (development inhibitor; package of laminated lithog.
 printing original plate)

IT 811438-65-0P, Acrylonitrile-p-cyanophenyl
 methacrylamide-methacrylic acid-methyl methacrylate copolymer
 RL: IMF (Industrial manufacture); TEM (Technical or engineered
 material use); PREP (Preparation); USES (Uses)
 (recording layer containing; package of laminated lithog.
 printing original plate)

IT 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer 134127-48-3
 146115-88-0 593259-12-2 593266-64-9
 RL: TEM (Technical or engineered material use); USES (Uses)
 (recording layer containing; package of laminated lithog.
 printing original plate)

L64 ANSWER 5 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2003:711065 HCAPLUS
 DOCUMENT NUMBER: 139:237754
 TITLE: Offset printing plate master showing excellent
 scratch-resistance, developability, and
 printability for laser direct printing
 platemaking
 INVENTOR(S): Miyake, Hideo; Watanabe, Noriaki
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003255520	A2	20030910	JP 2002-55882	2002 0301

PRIORITY APPLN. INFO.: JP 2002-55882
 2002
 0301

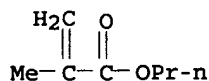
AB The title printing plate master comprises an image recording layer
 comprised of a water-insol., alkaline-
 soluble resin and IR-absorber on a support, wherein the image
 recording layer contains ≥ 1.0 % of water.

IT 58931-97-8P, Methacrylic acid-propyl methacrylate
 copolymer
 RL: DEV (Device component use); PNU (Preparation, unclassified);
 PREP (Preparation); USES (Uses)
 (in offset printing plate master showing excellent
 scratch-resistance, developability, and printability for laser
 direct printing platemaking)

RN 58931-97-8 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with propyl
 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

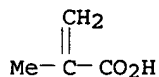
CRN 2210-28-8
 CMF C7 H12 O2



CM 2

CRN 79-41-4

CMF C4 H6 O2



IC ICM G03F007-00

ICS G03F007-004

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT **Lithographic plates**

(offset; offset printing plate master
showing excellent scratch-resistance, developability, and
printability for laser direct printing platemaking)

IT 58931-97-8P, Methacrylic acid-propyl methacrylate

copolymer 141634-00-6P, Acrylonitrile-N-(4-
aminosulfonylphenyl)methacrylamide-methyl methacrylate copolymer

RL: DEV (Device component use); PNU (Preparation, unclassified);

PREP (Preparation); USES (Uses)

(in offset printing plate master showing excellent
scratch-resistance, developability, and printability for laser
direct printing platemaking)

L64 ANSWER 6 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:847626 HCAPLUS

DOCUMENT NUMBER: 135:378768

TITLE: IR laser direct-writing negative-working
**lithographic printing
plates**

INVENTOR(S): Aoshima, Keitaro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 30 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001324798	A2	20011122	JP 2000-144732	2000 0517
EP 1155820	A2	20011121	EP 2001-110103	2001 0502
EP 1155820	A3	20030924		
EP 1155820	B1	20060215		
R: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE, TR				
US 2002011165	A1	20020131	US 2001-847411	2001 0503

US 6972167 B2 20051206 JP 2000-144732 A
 PRIORITY APPLN. INFO.: 2000
 0517

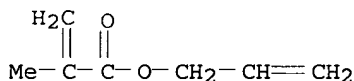
AB The plate comprises a support having (1) an underlayer containing a water-insol. but aqueous alkaline-soluble polymer and (2) an overlayer containing crosslinkable or polymerizable compound and which decreases its solubility to alkaline developing agent by forming covalent bonds induced by heat or light. The overlayer may contain IR absorbents free of ablation. Printings with excellent dot reproducibility are obtained by use of the plates.

IT 90216-38-9, Allyl methacrylate-methacrylic acid copolymer
 RL: DEV (Device component use); USES (Uses)
 (IR laser direct-writing neg.-working lithog.
 printing plates giving images with high dot
 reproducibility)

RN 90216-38-9 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with 2-propenyl
 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

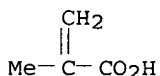
CM 1

CRN 96-05-9
 CMF C7 H10 O2



CM 2

CRN 79-41-4
 CMF C4 H6 O2



IC ICM G03F007-00
 ICS B41N001-14; G03F007-004; G03F007-027; G03F007-11
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and
 Other Reprographic Processes)
 Section cross-reference(s): 38
 ST IR laser direct writing lithog plate; neg
 working IR writing lithog plate
 IT Optical materials
 (IR absorbers; IR laser direct-writing neg.-working
 lithog. printing plates giving
 images with high dot reproducibility)
 IT Crosslinking
 Lithographic plates
 Polymerization
 (IR laser direct-writing neg.-working lithog.
 printing plates giving images with high dot
 reproducibility)
 IT IR materials
 (absorbers; IR laser direct-writing neg.-working lithog
 . printing plates giving images with high
 dot reproducibility)

IT 134127-48-3
RL: DEV (Device component use); MOA (Modifier or additive use);
USES (Uses)
(IR absorbent; IR laser direct-writing neg.-working
lithog. printing plates giving
images with high dot reproducibility)

IT 29570-58-9, Dipentaerythritol hexaacrylate 40220-08-4
90216-38-9, Allyl methacrylate-methacrylic acid copolymer
131290-87-4, Methyl methacrylate-N-(p-
toluenesulfonyl)methacrylamide copolymer 374667-55-7, Butyl
acrylate-N-(p-aminosulfonylphenyl)methacrylamide copolymer
RL: DEV (Device component use); USES (Uses)
(IR laser direct-writing neg.-working **lithog.**
printing plates giving images with high dot
reproducibility)

IT 262612-33-9
RL: DEV (Device component use); MOA (Modifier or additive use);
USES (Uses)
(radical initiator; IR laser direct-writing neg.-working
lithog. printing plates giving
images with high dot reproducibility)

L64 ANSWER 7 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:709943 HCAPLUS

DOCUMENT NUMBER: 135:280521

TITLE: Heat mode **lithographic** original
plate with intermediate layer

INVENTOR(S): Shimada, Kazuto; Uno, Seiji; Kunita, Kazuto

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 33 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2001264991	A2	20010928	JP 2000-73858	2000 0316

PRIORITY APPLN. INFO.: JP 2000-73858

2000
0316

AB The material comprises an anodized aluminum support having thereon
(A) an intermediate layer containing a polymer with an acidic group
and an onium group and (B) a photosensitive layer containing an IR
absorber, a polymerization initiator, a compound with a polymerizable
unsatd. group, and a binder which is insol. to
water and soluble to alkaline aqueous solution It
shows improved adhesion between the support and the photosensitive
layer, dirt prevention in non-image area, image reproduction, and
printing durability.

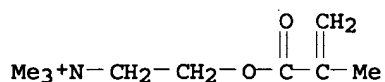
IT 220338-27-2
RL: DEV (Device component use); USES (Uses)
(heat-mode **lithog. plate** with intermediate
layer containing polymer with acidic and onium groups)

RN 220338-27-2 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-,
chloride, polymer with methyl 2-methyl-2-propenoate and
2-methyl-2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

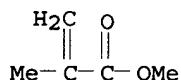
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CMF C9 H18 N O2 . Cl



● Cl⁻

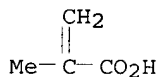
CM 2

CRN 80-62-6
CMF C5 H8 O2



CM 3

CRN 79-41-4
CMF C4 H6 O2

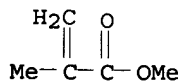


IT 25086-15-1, Methacrylic acid-methyl methacrylate copolymer
26351-99-5, Acrylic acid-butyl acrylate-2-hydroxyethyl
methacrylate-methyl methacrylate copolymer 90216-38-9,
Allyl methacrylate-methacrylic acid copolymer
RL: DEV (Device component use); USES (Uses)
(photosensitive layer, binder; heat-mode lithog.
plate with intermediate layer containing polymer with
acidic and onium groups)

RN 25086-15-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with methyl
2-methyl-2-propenoate (9CI) (CA INDEX NAME)

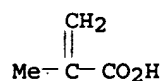
CM 1

CRN 80-62-6
CMF C5 H8 O2



CM 2

CRN 79-41-4
CMF C4 H6 O2



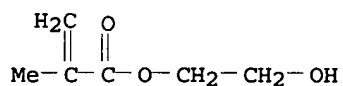
RN 26351-99-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with butyl 2-propenoate, methyl 2-methyl-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 868-77-9

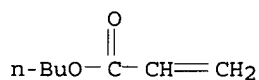
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CM 2

CRN 141-32-2

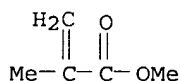
CMF C7 H12 O2



CM 3

CRN 80-62-6

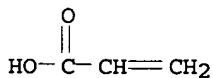
CMF C5 H8 O2



CM 4

CRN 79-10-7

CMF C3 H4 O2



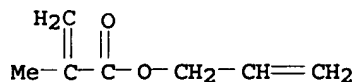
RN 90216-38-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-propenyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 96-05-9

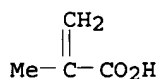
CMF C7 H10 O2



CM 2

CRN 79-41-4

CMF C4 H6 O2



- IC ICM G03F007-11
ICS G03F007-00; G03F007-004; G03F007-033
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
- ST **lithog plate** heat mode; intermediate layer
polymer acidic onium group; IR absorbent photosensitive layer
lithog plate
- IT Carbon black, uses
RL: DEV (Device component use); USES (Uses)
(IR absorbent; heat-mode **lithog. plate** with
intermediate layer containing polymer with acidic and onium groups)
- IT **Lithographic plates**
(heat-mode **lithog. plate** with intermediate
layer containing polymer with acidic and onium groups)
- IT 134127-48-3 173474-43-6
RL: DEV (Device component use); USES (Uses)
(IR absorbent; heat-mode **lithog. plate** with
intermediate layer containing polymer with acidic and onium groups)
- IT 94-36-0, Benzoyl peroxide, uses 1707-68-2 220122-68-9
220476-39-1
RL: CAT (Catalyst use); USES (Uses)
(heat-mode **lithog. plate** with intermediate
layer containing polymer with acidic and onium groups)
- IT 215926-06-0 216861-99-3 220227-02-1 220338-27-2
224179-27-5 252721-97-4 252721-98-5 263711-33-7
263718-09-8 362623-79-8 362624-29-1
RL: DEV (Device component use); USES (Uses)
(heat-mode **lithog. plate** with intermediate
layer containing polymer with acidic and onium groups)
- IT 25086-15-1, Methacrylic acid-methyl methacrylate copolymer
26351-99-5, Acrylic acid-butyl acrylate-2-hydroxyethyl
methacrylate-methyl methacrylate copolymer 90216-38-9,
Allyl methacrylate-methacrylic acid copolymer 362623-80-1
RL: DEV (Device component use); USES (Uses)
(photosensitive layer, binder; heat-mode **lithog.**
plate with intermediate layer containing polymer with
acidic and onium groups)
- IT 4986-89-4, Pentaerythritol tetraacrylate 29570-58-9,
Dipentaerythritol hexaacrylate
RL: DEV (Device component use); USES (Uses)
(photosensitive layer; heat-mode **lithog.**
plate with intermediate layer containing polymer with
acidic and onium groups)

L64 ANSWER 8 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:709844 HCAPLUS
 DOCUMENT NUMBER: 135:249505
 TITLE: Positive-working presensitized plate
 useful for preparing a lithographic
 printing plate
 INVENTOR(S): Fujita, Kazuo; Tan, Shiro; Nagashima, Akira
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Eur. Pat. Appl., 34 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1136886	A1	20010926	EP 2001-106429	2001 0322
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2001264979	A2	20010928	JP 2000-79611	2000 0322
CN 1314617	A	20010926	CN 2001-103858	2001 0314
US 2001041299	A1	20011115	US 2001-811425	2001 0320
US 6517987	B2	20030211		
PRIORITY APPLN. INFO.:			JP 2000-79611	A 2000 0322

AB The present invention relates to a pos.-working presensitized plate useful for preparing a lithog. printing plate comprising a pos.-working photosensitive composition comprising at least one ester of 1,2-naphthoquinone-2-diazide-5-sulfonic acid, at least one ester of 1,2-naphthoquinone-2-diazide-4-sulfonic acid, and at least one polymer which is insol. in water and soluble in an aqueous alkaline solution and which comprises at least one group or bond selected from sulfonamide group, urea bond or urethane bond. A lithog. printing plate prepared from the presensitized plate of the present invention shows improvement of chemical-resistance and printing durability, and good sensitivity, coupling property, adaptability to ball-point pen, shelf stability, and stability of sensitivity with time after exposure.

IT 29763-27-7P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (pos.-working presensitized plate useful for preparing lithog. printing plate)

RN 29763-27-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with methyl
 2-methyl-2-propenoate and 2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

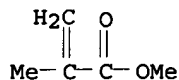
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CMF C3 H3 N



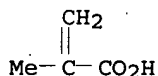
CM 2

CRN 80-62-6
CMF C5 H8 O2



CM 3

CRN 79-41-4
CMF C4 H6 O2



- IC ICM G03F007-022
ICS G03F007-023
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
- ST lithog printing plate presensitized
pos working resin
- IT Lithographic plates
(presensitized, pos.-working; pos.-working presensitized
plate useful for preparing lithog.
printing plate)
- IT 29763-27-7P 141634-00-6P, Acrylonitrile-N-(p-aminosulfonylphenyl)methacrylamide-methylmethacrylate copolymer
184348-65-0P 263716-62-7P 326820-92-2P, Acrylonitrile-N-(p-aminosulfonylphenyl)methacrylamide-2-hydroxyethyl
methacrylate-methylmethacrylate copolymer 355113-67-6P
360787-05-9P 360787-06-0P 360787-07-1P
RL: SPN (Synthetic preparation); TEM (Technical or engineered
material use); PREP (Preparation); USES (Uses)
(pos.-working presensitized plate useful for preparing
lithog. printing plate)
- IT 123-30-8D, 4-Aminophenol, reaction products with
xylenediisocyanate, ester with naphthoquinonediazide sulfonic acid
3634-83-1D, reaction products with aminophenol, ester with
naphthoquinonediazide sulfonic acid 20546-03-6D,
1,2-Naphthoquinone-2-diazide-5-sulfonic acid, ester with reaction
products of aminophenol and xylenediisocyanate 20680-48-2D,
1,2-Naphthoquinone-2-diazide-4-sulfonic acid, ester with reaction
products of aminophenol and xylenediisocyanate 40377-69-3,
1,2-Naphthoquinone-2-diazide-5-sulfonic acid 2,3,4-
trihydroxybenzophenone ester 58640-48-5, Acetone-pyrogallol
copolymer 1,2-naphthoquinone-2-diazide-4-sulfonate 68584-99-6,
Acetone-pyrogallol copolymer 1,2-naphthoquinone-2-diazide-5-
sulfonate 84938-98-7 95965-97-2 121870-66-4 125857-81-0
133757-73-0D, Burnock DN-980S, reaction products with aminophenol,
ester with naphthoquinonediazide sulfonic acid 360791-61-3
RL: TEM (Technical or engineered material use); USES (Uses)
(pos.-working presensitized plate useful for preparing
lithog. printing plate)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE

FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L64 ANSWER 9 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2001:654950 HCAPLUS
 DOCUMENT NUMBER: 135:218760
 TITLE: Materials for heat-mode laser platemaking
 offering long-life lithographic
 master plates
 INVENTOR(S): Fujimaki, Kazuhiro; Sorori, Tadahiro
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 24 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001242612	A2	20010907	JP 2000-55564	2000 0301
US 2002086238	A1	20020704	US 2001-795195	2001 0301
US 6844137	B2	20050118		
AT 307025	E	20051115	AT 2001-104496	2001 0301
PRIORITY APPLN. INFO.:			JP 2000-55564	A 2000 0301
			JP 2000-133198	A 2000 0502

AB The materials contain (A) water-insol. macromols. bearing XNHY or ZNHR (X, Y = bivalent organic groups essentially containing CO and/or SO₂; Z = CO, SO₂; R = H, monovalent organic groups) in their sidechains and being soluble in aqueous alkaline solns., (B) radical monomers, (C) light-heat converting agents, and (D) radical generators. Lithog. masters offered by platemaking of the materials show excellent printing durability.

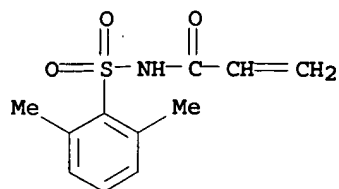
IT 358349-39-0P 358349-47-0P
 RL: DEV (Device component use); PNU (Preparation, unclassified);
 PREP (Preparation); USES (Uses)
 (materials for heat-mode laser platemaking offering long-life lithog. masters)

RN 358349-39-0 HCAPLUS

CN 2-Propenoic acid, polymer with N-[(2,6-dimethylphenyl)sulfonyl]-2-propenamide, 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate and 2-(2-propenyloxy)ethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

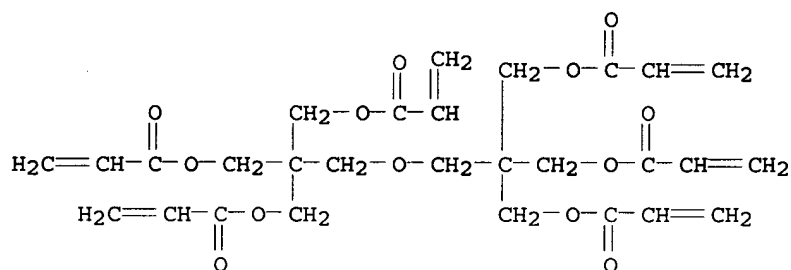
CRN 358349-38-9
 CMF C11 H13 N O3 S



CM 2

CRN 29570-58-9

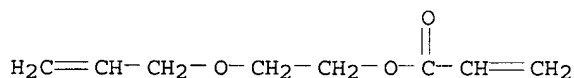
CMF C28 H34 O13



CM 3

CRN 7784-80-7

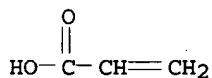
CMF C8 H12 O3



CM 4

CRN 79-10-7

CMF C3 H4 O2



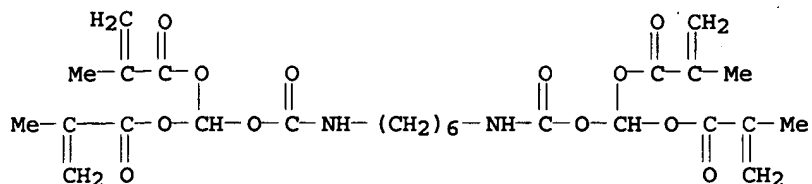
RN 358349-47-0 HCAPLUS

CM 11,13-Dioxa-2,9-diazahexadec-15-enoic acid, 15-methyl-12-[(2-methyl-1-oxo-2-propenyl)oxy]-10,14-dioxo-, bis[(2-methyl-1-oxo-2-propenyl)oxy]methyl ester, polymer with 2-methyl-N-(phenylsulfonyl)-2-propenamide, 2-methyl-2-propenoic acid and 2-(2-propenyloxy)ethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 278777-56-3

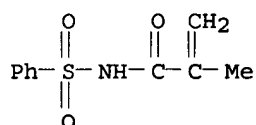
CMF C26 H36 N2 O12



CM 2

CRN 33920-37-5

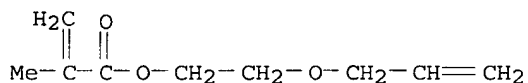
CMF C10 H11 N O3 S



CM 3

CRN 16839-48-8

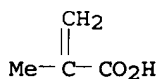
CMF C9 H14 O3



CM 4

CRN 79-41-4

CMF C4 H6 O2



- IC ICM G03F007-00
ICS B41N001-14; C08F002-44; C08F002-50; C08F291-00; G03F007-004;
G03F007-027; G03F007-032
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and
Other Reprographic Processes)
Section cross-reference(s): 38
- ST acidic hydrogen bearing binder lithog master; neg photoimaging
lithog master laser platemaking; **printing** durability
improved **lithog** master **plate**; carbonyl
sulfonyl bearing binder lithog master
- IT **Lithographic plates**
(materials for heat-mode laser platemaking offering long-life
lithog. masters)
- IT 358349-32-3P 358349-34-5P 358349-35-6P 358349-37-8P
358349-39-0P 358349-40-3P 358349-41-4P 358349-42-5P
358349-43-6P 358349-45-8P 358349-46-9P 358349-47-0P

358349-48-1P 358349-49-2P 358349-50-5P
RL: DEV (Device component use); PNU (Preparation, unclassified);
PREP (Preparation); USES (Uses)
(materials for heat-mode laser platemaking offering long-life
lithog. masters)

L64 ANSWER 10 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:615695 HCAPLUS

DOCUMENT NUMBER: 135:187747

TITLE: Manufacture of chemically-resistant
planographic plates employing
nonreducing-sugar-containing developers

INVENTOR(S): Fujita, Kazuo; Tan, Shiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001228627	A2	20010824	JP 2000-37466	2000 0216

PRIORITY APPLN. INFO.:

JP 2000-37466

2000
0216

AB In the process, presensitized planog. plates possessing pos.
photoimageable layers containing sulfonamide-bearing water-
insol. macromols. are processed with developers with pH
9.0-13.5 containing nonreducing sugars and bases. The macromols. are
soluble in aqueous alkaline solns. The plates show
minimized residual color and inhibit coupling phenomena.

IT 125370-69-6P

RL: PEP (Physical, engineering or chemical process); PNU
(Preparation, unclassified); TEM (Technical or engineered material
use); PREP (Preparation); PROC (Process); USES (Uses)
(photoimageable layers; manufacture of chemical-resistant planog.
plates employing nonreducing-sugar-containing developers)

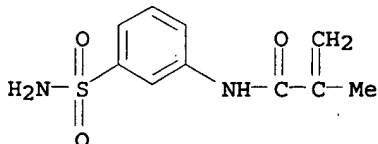
RN 125370-69-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with N-[3-
(aminosulfonyl)phenyl]-2-methyl-2-propenamide and 2-propenenitrile
(9CI) (CA INDEX NAME)

CM 1

CRN 125026-41-7

CMF C10 H12 N2 O3 S



CM 2

CRN 107-13-1

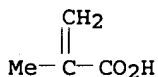
CMF C3 H3 N



CM 3

CRN 79-41-4

CMF C4 H6 O2



IC ICM G03F007-32
ICS G03F007-00; G03F007-023
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
ST planog plate pattern developer nonreducing sugar; pH controlled developer **lithog printing plate**; sulfonamide bearing presensitized planog plate development; residual color minimized planog plate manuf
IT **Lithographic plates**
(planog.; manufacture of chemical-resistant planog. plates employing nonreducing-sugar-containing developers)
IT 124996-96-9P 125370-69-6P 141634-00-6P 326820-92-2P, Acrylonitrile-N-(p-aminosulfonylphenyl)methacrylamide-2-hydroxyethyl methacrylate-methyl methacrylate copolymer 355113-72-3P 355113-73-4P
RL: PEP (Physical, engineering or chemical process); PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
(photoimageable layers; manufacture of chemical-resistant planog. plates employing nonreducing-sugar-containing developers)

L64 ANSWER 11 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:133717 HCAPLUS

DOCUMENT NUMBER: 134:185987

TITLE: Photosensitive **lithographic printing plate** comprising vinyl copolymer **soluble in alkaline** aqueous solution
Fujita, Kazuo; Tan, Shiro

INVENTOR(S): Fujita, Kazuo; Tan, Shiro
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 26 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	---	-----	-----	
EP 1077392	A1	20010221	EP 2000-116205	2000 0803
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2001051407	A2	20010223	JP 1999-229889	1999

JP 2001051408 A2 20010223 JP 1999-229890 0816
 1999
 0816
 PRIORITY APPLN. INFO.: JP 1999-229889 A
 1999
 0816
 JP 1999-229890 A
 1999
 0816

AB Disclosed is a photosensitive lithog. printing plate having a photosensitive layer that comprises an o-naphthoquinone diazide compound and vinyl polymer insol. in water but soluble in an alkaline aqueous solution, the vinyl polymer is a copolymer that comprises (a) units of a compound containing at least one phenolic hydroxyl group or at least one sulfonamido group and at least one polymerizable unsatd. bond and (b) units of a compound containing at least one alc. hydroxyl group and at least one polymerizable unsatd. bond. An object of the present invention is to provide the photosensitive lithog. printing plate that can be developed with the aqueous alkaline developer, has excellent abrasion resistance and ensures no scum during printing and great press life.

IT 326820-95-5P

RL: PNU (Preparation, unclassified); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(vinyl polymer insol. in water but soluble in alkaline aqueous solution for photosensitive lithog. printing plate)

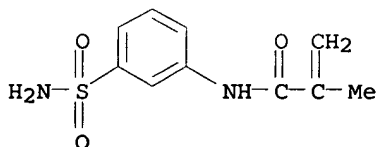
RN 326820-95-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with N-[3-(aminosulfonyl)phenyl]-2-methyl-2-propenamide, 2-hydroxyethyl 2-methyl-2-propenoate and 2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

CRN 125026-41-7

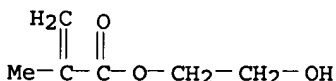
CMF C10 H12 N2 O3 S



CM 2

CRN 868-77-9

CMF C6 H10 O3



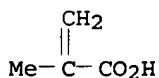
CM 3

CRN 107-13-1
CMF C3 H3 N



CM 4

CRN 79-41-4
CMF C4 H6 O2



- IC ICM G03F007-023
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
- ST **lithog printing plate** photosensitive vinyl copolymer aq alkali developer; UV ink photosensitive **lithog printing plate** vinyl copolymer
- IT **Lithographic plates**
(photosensitive lithog. printing plate comprising vinyl polymer and o-naphthoquinone diazide compound)
- IT 68510-93-0, 2,3,4-Trihydroxybenzophenone naphthoquinone-1,2-diazide-5-sulfonate
RL: TEM (Technical or engineered material use); USES (Uses)
(photosensitive lithog. printing plate comprising vinyl polymer and o-naphthoquinone diazide compound)
- IT 623-05-2, 4-Hydroxybenzylalcohol 30674-80-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of vinyl polymer insol. in water but soluble in alkaline aqueous solution for photosensitive lithog. printing plate)
- IT 293315-01-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of vinyl polymer insol. in water but soluble in alkaline aqueous solution for photosensitive lithog. printing plate)
- IT 326820-83-1P 326820-85-3P 326820-87-5P 326820-89-7P
326820-91-1P 326820-93-3P 326820-94-4P 326820-95-5P
326820-96-6P 326820-97-7P 326820-98-8P
RL: PNU (Preparation, unclassified); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(vinyl polymer insol. in water but soluble in alkaline aqueous solution for photosensitive lithog. printing plate)
- IT 326820-82-0P 326820-92-2P, Acrylonitrile-N-(p-aminosulfonylphenyl)methacrylamide-2-hydroxyethyl methacrylate-methyl methacrylate copolymer
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(vinyl polymer insol. in water but soluble in alkaline aqueous solution for photosensitive

lithog. printing plate)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L64 ANSWER 12 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:350555 HCAPLUS
DOCUMENT NUMBER: 126:323323
TITLE: Positive presensitized lithographic
printing plate and process
for producing the same
INVENTOR(S): Kawauchi, Ikuo; Mizutani, Kazutaka; Fukino,
Kiyotaka; Kitada, Kazuyuki; Oda, Kazutaka
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 22 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 766140	A1	19970402	EP 1996-115583	1996 0927
EP 766140 R: DE, GB	B1	20010411		
JP 09090610	A2	19970404	JP 1995-273650	1995 0927
JP 3471990	B2	20031202		
JP 2004004884	A2	20040108	JP 2003-164143	2003 0609
PRIORITY APPLN. INFO.:			JP 1995-273650	A 1995 0927

AB A pos. presensitized lithog. printing
plate comprising a support and a light-sensitive layer
formed thereon which contains (a) an acrylic or urethane-based
high-mol.-weight compound which is insol. in water
but soluble in an alkaline aqueous solution and (b) an
alkali-soluble novolak resin, either the high-mol.- weight compound or the
resin providing dispersed phases having a maximum major axis of 0.1
to 0.8 μ m and an average major axis of 0.05 to 0.6 μ m and a
process for producing the same are disclosed. The printing plate
has long press life and great latitude in development.

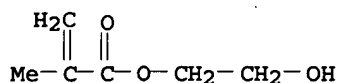
IT 28136-81-4, 2-Hydroxyethyl methacrylate; methacrylic
acid; methyl methacrylate copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(pos. presensitized lithog. printing
plates containing)

RN 28136-81-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-hydroxyethyl
2-methyl-2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA
INDEX NAME)

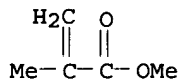
CM 1

CRN 868-77-9
CMF C6 H10 O3



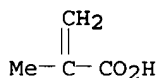
CM 2

CRN 80-62-6
CMF C5 H8 O2



CM 3

CRN 79-41-4
CMF C4 H6 O2



IC ICM G03F007-023
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST pos presensitized lithog plate novolak resin;
urethane compd pos presensitized lithog plate;
acrylic compd pos presensitized lithog plate
IT Lithographic plates
(pos. presensitized; containing acrylic or urethane compds. and)
IT 9003-35-4, Formaldehyde-phenol copolymer 27029-76-1,
m-Cresol-p-cresol-formaldehyde copolymer 28136-81-4,
2-Hydroxyethyl methacrylate; methacrylic acid; methyl methacrylate
copolymer 68510-93-0 115111-30-3, Acrylonitrile-N-(4-
hydroxyphenyl)methacrylamide-methyl methacrylate copolymer
124996-93-6, N-[4-(Aminosulfonyl)phenyl]-2-methyl-2-propenamide;
ethyl 2-methyl-2-propenoate; 2-propenenitrile copolymer
130396-33-7 153273-61-1 189316-89-0, Benzyl
methacrylate; methyl methacrylate; N-[4-(methylphenyl)sulfonyl]-2-
methyl-2-propenamide; 2-propenenitrile copolymer 189316-90-3
RL: TEM (Technical or engineered material use); USES (Uses)
(pos. presensitized lithog. printing
plates containing)

L64 ANSWER 13 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:69495 HCAPLUS

DOCUMENT NUMBER: 126:96954

TITLE: Negative-working image recording material for
offset printingINVENTOR(S): Kobayashi, Fumikazu; Mizutani, Kazuyoshi;
Aoshima, Keitaro

PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 24 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08276558	A2	19961022	JP 1995-330618	1995 1219
JP 3515846	B2	20040405		
US 6132935	A	20001017	US 1996-691371	1996 0802
EP 780239	A2	19970625	EP 1996-112679	1996 0806
EP 780239	A3	19980819		
EP 780239	B1	20011107		
R: DE, GB				
PRIORITY APPLN. INFO.:			JP 1995-18120	A 1995 0206
			JP 1995-330618	A 1995 1219

AB The title neg.-working image recording material contains a light-absorbing substance which will generate heat on exposure to light, a resin which is insol. in water but soluble in an alkaline aqueous solution, and a phenolic derivative which has 4-8 benzene nuclei, ≥1 phenolic OH's, and ≥2 -CH₂OR₁ (R₁ = alkyl, acyl) groups in its mol. This image recording material is suitable for direct platemaking using near IR and IR.

IT 90216-38-9, Allyl methacrylate-methacrylic acid copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(neg.-working image recording material from)

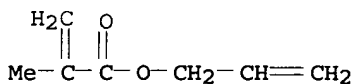
RN 90216-38-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-propenyl
2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 96-05-9

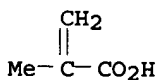
CMF C7 H10 O2



CM 2

CRN 79-41-4

CMF C4 H6 O2



IC ICM B41C001-05

ICS G03F007-00; G03F007-038; G03F007-20

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT **Lithographic plates**
 (offset; neg.-working image recording material for)
 IT 9003-35-4, Formaldehyde phenol copolymer 53655-17-7 55281-19-1
 90216-38-9, Allyl methacrylate-methacrylic acid copolymer
 174568-71-9 174568-79-7 185502-21-0 185502-22-1
 185502-23-2
 RL: TEM (Technical or engineered material use); USES (Uses)
 (neg.-working image recording material from)

L64 ANSWER 14 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1996:485266 HCAPLUS
 DOCUMENT NUMBER: 125:127850
 TITLE: Positive-working photosensitive composition
 and manufacture of lithographic
 plate
 INVENTOR(S): Kawachi, Ikuo
 PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08123029	A2	19960517	JP 1994-263862	1994 1027
JP 3335015	B2	20021015	JP 1994-263862	1994 1027

PRIORITY APPLN. INFO.: JP 1994-263862

AB The composition comprises (a) an polymer with a sulfonamide group and insol. in water and soluble in an alkaline aqueous solution, (b) an alkali-soluble novolak resin, (c) a pos.-working photosensitive compound, and (d) a cyclic lactone. A pos.-working presensitized lithog. plate is prepared by coating the composition on a substrate and drying. The plate shows good development latitude, abrasion resistance, printing durability without burning treatment, and chemical resistance.

IT 124996-94-7, N-(p-Aminosulfonylphenyl)methacrylamide-ethyl methacrylate-methacrylic acid copolymer
 RL: DEV (Device component use); USES (Uses)
 (pos.-working presensitized lithog. plate
 containing cyclic lactone and polymer with sulfonamide group)

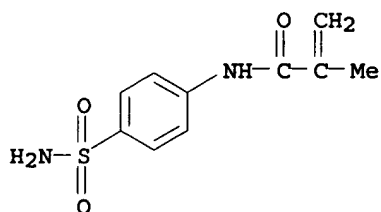
RN 124996-94-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with N-[4-(aminosulfonyl)phenyl]-2-methyl-2-propenamide and ethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 56992-87-1

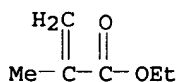
CMF C10 H12 N2 O3 S



CM 2

CRN 97-63-2

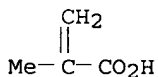
CMF C6 H10 O2



CM 3

CRN 79-41-4

CMF C4 H6 O2



- IC ICM G03F007-039
ICS G03F007-00; G03F007-022; G03F007-023; G03F007-033;
G03F007-035
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and
Other Reprographic Processes)
- ST lithog plate presensitized cyclic lactone;
photosensitive compn sulfonamide group polymer
- IT Lithographic plates
(pos.-working photosensitive compns. containing cyclic lactones for
preparation of)
- IT Urethane polymers
RL: DEV (Device component use); USES (Uses)
(pos.-working photosensitive compns. for lithog.
plate preparation containing cyclic lactones and)
- IT 124996-94-7, N-(p-Aminosulfonylphenyl)methacrylamide-ethyl
methacrylate-methacrylic acid copolymer 124996-96-9
179695-30-8
RL: DEV (Device component use); USES (Uses)
(pos.-working presensitized lithog. plate
containing cyclic lactone and polymer with sulfonamide group)
- IT 96-48-0, γ -Butyrolactone
RL: DEV (Device component use); MOA (Modifier or additive use);
USES (Uses)
(pos.-working presensitized lithog. plate
containing cyclic lactone and polymer with sulfonamide group)
- IT 62814-37-3P, N-(p-Aminosulfonylphenyl)methacrylamide-methyl
methacrylate copolymer 124996-93-6P, Acrylonitrile-N-(p-
Aminosulfonylphenyl)methacrylamide-ethyl methacrylate copolymer
124996-98-1P 179695-31-9P
RL: DEV (Device component use); PNU (Preparation, unclassified);
PREP (Preparation); USES (Uses)

(pos.-working presensitized lithog. plate
containing cyclic lactone and polymer with sulfonamide group)

L64 ANSWER 15 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:248128 HCAPLUS
DOCUMENT NUMBER: 124:302640
TITLE: Photosensitive compositions using synthetic
resin surfactant
INVENTOR(S): Nakamura, Chiaki; Yamamoto, Koji; Hayakawa,
Eiji
PATENT ASSIGNEE(S): Dainippon Ink & Chemicals, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08015858	A2	19960119	JP 1994-149464	1994 0630
JP 3378359	B2	20030217	JP 1994-149464	1994 0630

PRIORITY APPLN. INFO.: JP 1994-149464

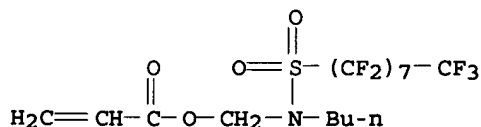
AB The title compns. contain, as a F-type surfactant, a synthetic resin having fluoroaliph. groups, polyoxyalkylene and/or anionic groups, and acidic H-containing substituents. The photosensitive composition for printing plate comprises the F-type surfactant, a photosensitive compound, and a synthetic resin which is insol. in water and soluble or swelling in alkaline solution. The compns., used in production of presensitized lithog. plates, show good developability with exhausted developer. Thus, a photosensitive composition comprised a polyurethane prepared from perfluorooctanesulfonic acid diethanol amide, polyethylene glycol, 2,4-tolylene diisocyanate, and 2,2-bis(hydroxymethyl)propionic acid, 1,2-naphthoquinone-2-diazido-5-sulfonate of pyrogallol-acetone resin, and a cresol-HCHO novolak resin.

IT 176205-83-7 176205-84-8 176205-86-0
RL: DEV (Device component use); MOA (Modifier or additive use);
USES (Uses)
(photosensitive resin composition containing fluorine-type surfactant for presensitized lithog. plate)

RN 176205-83-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with
[butyl[(heptadecafluorooctyl)sulfonyl]amino]methyl 2-propenoate and α -(1-oxo-2-propenyl)- ω -methoxypoly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 176205-82-6
CMF C16 H14 F17 N O4 S

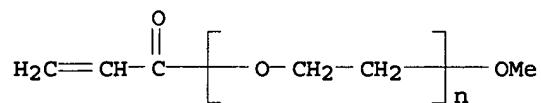


CM 2

CRN 32171-39-4

CMF (C2 H4 O)n C4 H6 O2

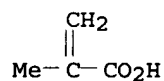
CCI PMS



CM 3

CRN 79-41-4

CMF C4 H6 O2



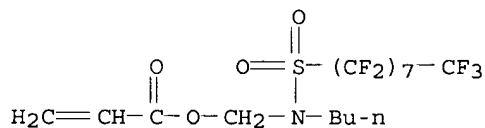
RN 176205-84-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with
[butyl[(heptadecafluorooctyl)sulfonyl]amino]methyl 2-propenoate
and α -(1-oxo-2-propenyl)- ω -methoxypoly[oxy(methyl-1,2-ethanediyl)] (9CI). (CA INDEX NAME)

CM 1

CRN 176205-82-6

CMF C16 H14 F17 N O4 S

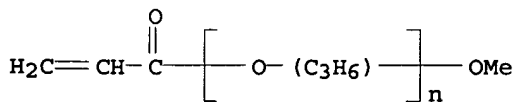


CM 2

CRN 83844-54-6

CMF (C3 H6 O)n C4 H6 O2

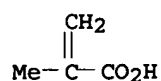
CCI IDS, PMS



CM 3

CRN 79-41-4

CMF C4 H6 O2



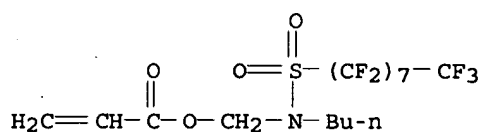
RN 176205-86-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with
[butyl[(heptadecafluorooctyl)sulfonyl]amino]methyl 2-propenoate
and 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid
monosodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 176205-82-6

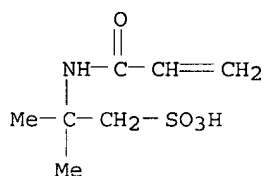
CMF C16 H14 F17 N O4 S



CM 2

CRN 5165-97-9

CMF C7 H13 N O4 S . Na

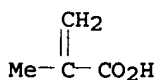


● Na

CM 3

CRN 79-41-4

CMF C4 H6 O2



IC ICM G03F007-004

ICS B01F017-52; C09D133-06; C09D201-02; G03F007-035

ICA C08F290-06; C08G018-65

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and
Other Reprographic Processes)

ST fluorine surfactant photosensitive compn; presensitized
lithog plate photosensitive compn

IT Lithographic plates

(photosensitive resin composition containing fluorine-type surfactant)

for presensitized lithog. plate)

IT Urethane polymers, uses
 RL: DEV (Device component use); MOA (Modifier or additive use);
 USES (Uses)
 (fluorine-containing, photosensitive resin composition containing
 fluorine-type surfactant for presensitized lithog.
 plate)

IT Fluoropolymers
 RL: DEV (Device component use); MOA (Modifier or additive use);
 USES (Uses)
 (polyurethane-, photosensitive resin composition containing
 fluorine-type surfactant for presensitized lithog.
 plate)

IT 176205-78-0 176205-79-1 176205-80-4 176205-81-5
 176205-83-7 176205-84-8 176205-85-9
 176205-86-0
 RL: DEV (Device component use); MOA (Modifier or additive use);
 USES (Uses)
 (photosensitive resin composition containing fluorine-type surfactant
 for presensitized lithog. plate)

L64 ANSWER 16 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1990:226827 HCAPLUS

DOCUMENT NUMBER: 112:226827

TITLE: Photosensitive compositions for
 lithographic plates

INVENTOR(S): Koike, Akinobu; Akiyama, Keiji

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Ger. Offen., 15 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
DE 3918489	A1	19891214	DE 1989-3918489	1989 0606
JP 01307745	A2	19891212	JP 1988-139678	1988 0607
US 5047309	A	19910910	US 1989-362255	1989 0606

PRIORITY APPLN. INFO.: JP 1988-139678 A
 1988
 0607

AB The title material comprises: (1) a substrate with a hydrophilic surface; (2) an underlayer containing ≥ 1 compound having ≥ 1 functional group from a thiol, a thioether, or a disulfide; and (3) a photosensitive layer containing a diazonium compound and a binder from a high mol. weight polymer which is insol. in H₂O but soluble in an aqueous alkaline solution. The above material is used for producing lithog. plates. The developed plates do not show staining of the background in the printing process.

IT 59592-92-6 77833-95-5 126858-18-2

127115-35-9

RL: USES (Uses)

(photosensitive composition containing, for lithog.
 plate production)

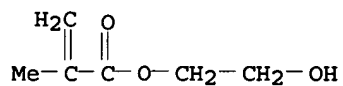
RN 59592-92-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-hydroxyethyl
2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and
2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

CRN 868-77-9

CMF C6 H10 O3



CM 2

CRN 107-13-1

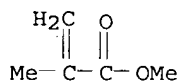
CMF C3 H3 N



CM 3

CRN 80-62-6

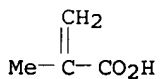
CMF C5 H8 O2



CM 4

CRN 79-41-4

CMF C4 H6 O2



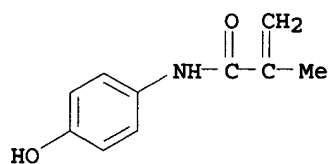
RN 77833-95-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with ethyl 2-propenoate,
N-(4-hydroxyphenyl)-2-methyl-2-propenamide and 2-propenenitrile
(9CI) (CA INDEX NAME)

CM 1

CRN 19243-95-9

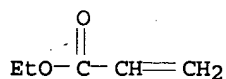
CMF C10 H11 N O2



CM 2

CRN 140-88-5

CMF C5 H8 O2



CM 3

CRN 107-13-1

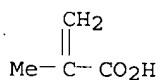
CMF C3 H3 N



CM 4

CRN 79-41-4

CMF C4 H6 O2



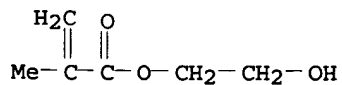
RN 126858-18-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-hydroxyethyl
2-methyl-2-propenoate, methyl 2-methyl-2-propenoate,
2-propenenitrile and 1H-pyrrole-2,5-dione (9CI) (CA INDEX NAME)

CM 1

CRN 868-77-9

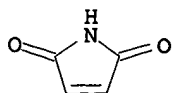
CMF C6 H10 O3



CM 2

CRN 541-59-3

CMF C4 H3 N O2



CM 3

CRN 107-13-1

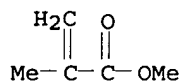
CMF C3 H3 N



CM 4

CRN 80-62-6

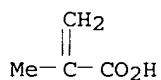
CMF C5 H8 O2



CM 5

CRN 79-41-4

CMF C4 H6 O2



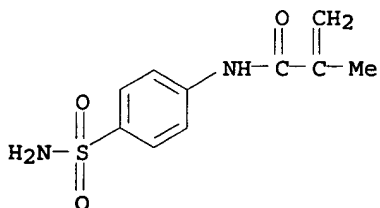
RN 127115-35-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with N-[4-(aminosulfonyl)phenyl]-2-methyl-2-propenamide, ethyl 2-propenoate and 2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

CRN 56992-87-1

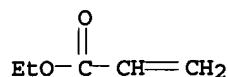
CMF C10 H12 N2 O3 S



CM 2

CRN 140-88-5

CMF C5 H8 O2



CM 3

CRN 107-13-1

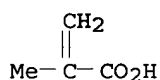
CMF C3 H3 N



CM 4

CRN 79-41-4

CMF C4 H6 O2



IC ICM G03F007-08

ICS C25B003-02

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST lithog plate photoimaging compn; binder
photoimaging compn lithog plate

IT Lithographic plates

(photosensitive composition for fabrication of, multilayer)

IT 70-49-5 123-93-3 147-93-3 7134-41-0

RL: USES (Uses)

(photosensitive composition containing diazonium compound and, for lithog. plate production)

IT 59592-92-6 77833-95-5 87263-96-5 117946-40-4

126858-18-2 127115-35-9

RL: USES (Uses)

(photosensitive composition containing, for lithog. plate production)

L64 ANSWER 17 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1990:226824 HCAPLUS

DOCUMENT NUMBER: 112:226824

TITLE: Photosensitive composition for
lithographic plate
production

INVENTOR(S): Aoshima, Kitaro; Akiyama, Keiji

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Ger. Offen., 17 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3913236	A1	19891102	DE 1989-3913236	

1989
0421
JP 01270047 A2 19891027 JP 1988-99551
1988
0422
JP 01270048 A2 19891027 JP 1988-99552
1988
0422
PRIORITY APPLN. INFO.: JP 1988-99551 A
1988
0422
JP 1988-99552 A
1988
0422

AB A neg.-working photosensitive composition is described comprising: (1) ≥ 1 diazonium compound; (2) ≥ 1 H₂O-insol. aqueous alkaline solution-soluble polymer; and (3) ≥ 1 compound with a thiol- and/or thioether group and an acid group in the mol., whose pKa ≤ 14 , and/or ≥ 1 compound with ≥ 1 thiol- and/or thioether group and an alc. OH and/or ether group in the mol. The material has improved developability in an aqueous alkaline solution. The composition also eliminates background contamination in lithog. plate production

IT 77833-95-5 126858-18-2 127097-61-4
127097-62-5 127115-35-9
RL: USES (Uses)

(photosensitive composition containing thiols and)

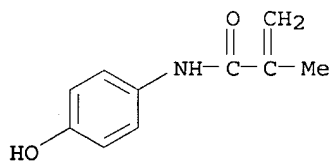
RN 77833-95-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with ethyl 2-propenoate, N-(4-hydroxyphenyl)-2-methyl-2-propenamide and 2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

CRN 19243-95-9

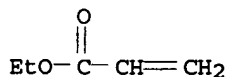
CMF C10 H11 N O2



CM 2

CRN 140-88-5

CMF C5 H8 O2



CM 3

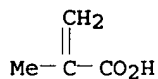
CRN 107-13-1

CMF C3 H3 N



CM 4

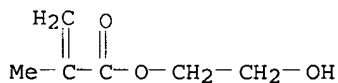
CRN 79-41-4
CMF C4 H6 O2



RN 126858-18-2 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with 2-hydroxyethyl
2-methyl-2-propenoate, methyl 2-methyl-2-propenoate,
2-propenenitrile and 1H-pyrrole-2,5-dione (9CI) (CA INDEX NAME)

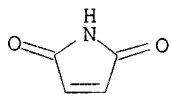
CM 1

CRN 868-77-9
CMF C6 H10 O3



CM 2

CRN 541-59-3
CMF C4 H3 N O2



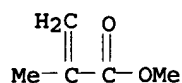
CM 3

CRN 107-13-1
CMF C3 H3 N



CM 4

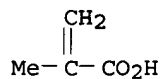
CRN 80-62-6
CMF C5 H8 O2



CM 5

CRN 79-41-4

CMF C4 H6 O2



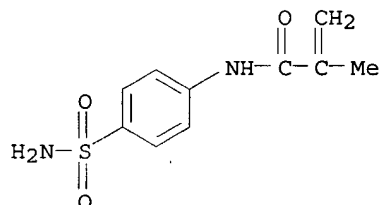
RN 127097-61-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with N-[4-(aminosulfonyl)phenyl]-2-methyl-2-propenamide, 2-hydroxyethyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and 2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

CRN 56992-87-1

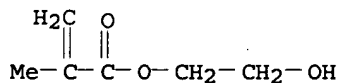
CMF C10 H12 N2 O3 S



CM 2

CRN 868-77-9

CMF C6 H10 O3



CM 3

CRN 107-13-1

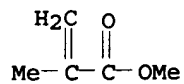
CMF C3 H3 N



CM 4

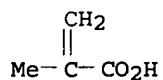
CRN 80-62-6

CMF C5 H8 O2



CM 5

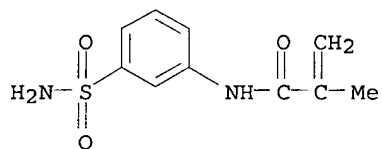
CRN 79-41-4
CMF C4 H6 O2



RN 127097-62-5 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with N-[3-(aminosulfonyl)phenyl]-2-methyl-2-propenamide, ethyl 2-methyl-2-propenoate and 2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

CRN 125026-41-7
CMF C10 H12 N2 O3 S



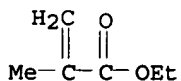
CM 2

CRN 107-13-1
CMF C3 H3 N



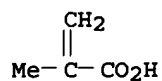
CM 3

CRN 97-63-2
CMF C6 H10 O2



CM 4

CRN 79-41-4
CMF C4 H6 O2

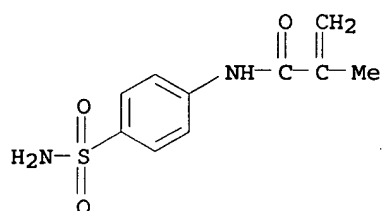


RN 127115-35-9 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with N-[4-(aminosulfonyl)phenyl]-2-methyl-2-propenamide, ethyl 2-propenoate and 2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

CRN 56992-87-1

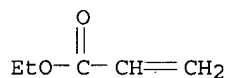
CMF C10 H12 N2 O3 S



CM 2

CRN 140-88-5

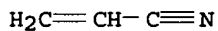
CMF C5 H8 O2



CM 3

CRN 107-13-1

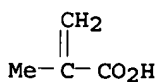
CMF C3 H3 N



CM 4

CRN 79-41-4

CMF C4 H6 O2



IC ICM G03F007-08

ICS G03F007-02

ICA H05K003-06

ICI C08K005-36, C08K005-23, C08L025-18, C08L033-00, C08L035-00,

C08L059-00, C08L061-06, C08L063-00, C08L075-04
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and
Other Reprographic Processes)
ST lithog plate photosensitive compn; thiol acid
thioether photosensitive compn
IT Lithographic plates
(photosensitive composition containing thiol and thioether compds. for
fabrication of)
IT 77833-95-5 96317-20-3 126858-18-2
127097-61-4 127097-62-5 127115-35-9
RL: USES (Uses)
(photosensitive composition containing thiols and)

L64 ANSWER 18 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1987:544920 HCAPLUS
DOCUMENT NUMBER: 107:144920
TITLE: Photosensitive resin compositions for
lithographic presensitized
plates
INVENTOR(S): Koike, Mitsuru; Imai, Masanori; Azuma,
Tatsuji; Kita, Nobuyuki
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62052548	A2	19870307	JP 1985-193395	1985 0902

PRIORITY APPLN. INFO.: JP 1985-193395

1985
0902

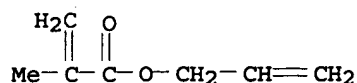
AB The title photosensitive compns. contain (1) ethylenically unsatd.
monomers, (2) alkaline solution-soluble (or swellable)
film-forming polymers, (3) photoinitiators, (4) solid (at room
temperature) higher fatty acids (or their amides), and (5) optically
transparent water-insol. particles whose average
particle size and n are $\leq 500 \mu$ and 1.3-1.7, resp. The
preferred content of the particles is 0.1-50 weight%. The
photosensitive compns. are especially useful in preparing presensitized
lithog. plates. The photosensitive compns. show
good adhesion with synthetic paper supports and give high-quality
lithog. plates.

IT 90216-38-9, Allyl methacrylate-methacrylic acid copolymer
RL: USES (Uses)
(photosensitive resin compns. containing, for presensitized
lithog. plates)

RN 90216-38-9 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with 2-propenyl
2-methyl-2-propenoate (9CI) (CA INDEX NAME)

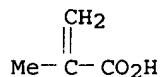
CM 1

CRN 96-05-9
CMF C7 H10 O2



CM 2

CRN 79-41-4
CMF C4 H6 O2



IC ICM G03C001-68
ICS G03C001-00; G03F007-10
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST photosensitive resin compn presensitized plate; lithog plate presensitized photosensitive resin
IT **Lithographic plates**
(presensitized, photosensitive resin compns. containing insol. particles for preparation of)
IT 112-85-6, Behenic acid 1328-54-7, Oil Blue 603 3061-75-4, Behenamide 7631-86-9, Silicon dioxide, uses and miscellaneous 15625-89-5, Trimethylolpropane triacrylate 69432-40-2 72015-26-0 73539-59-0 90216-38-9, Allyl methacrylate-methacrylic acid copolymer
RL: USES (Uses)
(photosensitive resin compns. containing, for presensitized lithog. plates)

L64 ANSWER 19 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1986:635833 HCAPLUS
DOCUMENT NUMBER: 105:235833
TITLE: Radiation-sensitive mixture, recording material produced from it, and production of heat-resistant relief recordings
INVENTOR(S): Schneller, Arnold; Geissler, Ulrich
PATENT ASSIGNEE(S): Hoechst A.-G. , Fed. Rep. Ger.
SOURCE: Ger. Offen., 30 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3442756	A1	19860528	DE 1984-3442756	1984 1123
EP 184044	A2	19860611	EP 1985-114454	1985 1114
EP 184044	A3	19880113		
EP 184044	B1	19920115		
R: AT, BE, CH, DE, FR, GB, IT, LI, NL, SE				
AT 71747	E	19920215	AT 1985-114454	1985 1114

JP 61143747 A2 19860701 JP 1985-261633

1985

1122

JP 05088834 B4 19931224

US 4699867

A 19871013

US 1985-800965

1985

1122

PRIORITY APPLN. INFO.:

DE 1984-3442756

A

1984

1123

EP 1985-114454

A

1985

1114

AB Pos.-working radiation-sensitive compns. are described for the production of relief images or resists of high resolution, good thermal stability, and resistance to solvents, etching solns., and galvanizing baths and that contain no components that upon heating give volatile products that deteriorate the image background. The compns. contain a **water-insol., aqueous alkaline solution-soluble** polymer binder and a 1,2-quinonediazide or a combination of a compound forming a strong acid upon exposure to actinic radiation and a compound having a cleavable COC bond whose solution in a liquid developer is increased by the effects of an acid. Thus, a photoresist composition containing an N-butoxymethylmethacrylamide-4-hydroxystyrene-styrene copolymer 8.9, 2,3,4-trihydroxybenzophenone tris(1,2-naphthoquinone-2-diazide-5-sulfonate) 1.1, butanone 45, and EtOH 45 parts was coated on a Si wafer, dried, imagewise exposed through a test mask, developed in an aqueous alkaline solution, and tempered to give a layer having outstanding resistance to heat and aggressive materials, such as HF plasma.

IT 105596-69-8

RL: USES (Uses)

(photosensitive composition containing, pos.-working, for lithog plates with improved heat resistance)

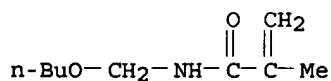
RN 105596-69-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with N-(butoxymethyl)-2-methyl-2-propenamide and ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 5153-77-5

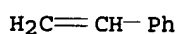
CMF C9 H17 N O2



CM 2

CRN 100-42-5

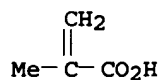
CMF C8 H8



CM 3

CRN 79-41-4

CMF C4 H6 O2



IC ICM G03F007-08
ICS G03C001-52
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT **Lithographic plates**
(photosensitive compns. for fabrication of, pos.-working, with improved heat resistance)
IT 467-63-0 69666-55-3 97802-84-1 105596-66-5 105596-67-6
105596-69-8
RL: USES (Uses)
(photosensitive composition containing, pos.-working, for lithog. plates with improved heat resistance)
IT 5610-94-6 9016-83-5
RL: USES (Uses)
(photosensitive compns. containing, pos.-working, for heat-resistant photoresists and lithog. plates)

L64 ANSWER 20 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1986:120049 HCAPLUS

DOCUMENT NUMBER: 104:120049

TITLE: Napthoquinone diazide sulfonic acid esters and light-sensitive compositions containing them

INVENTOR(S): Buhr, Gerhard; Ruckert, Hans; Stahlhofen, Paul

PATENT ASSIGNEE(S): Hoechst A.-G., Fed. Rep. Ger.

SOURCE: Pat. Specif. (Aust.), 27 pp.

CODEN: ALXXAP

DOCUMENT TYPE: Patent

LANGUAGE: English

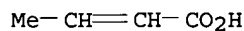
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

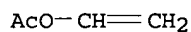
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
AU 543462	B2	19850418	AU 1981-76752	1981 1023
AU 8176752	A1	19820429		
PRIORITY APPLN. INFO.:			AU 1981-76752	1981 1023

AB A pos.-working photosensitive composition suitable for preparation of printing plates and photoresists contains a H₂O-insol. binder which is soluble or swells in aqueous-alkaline solns., and a 1,2-naphthoquinone-2-diazidosulfonic acid ester of a dihydroxyarylophenone or of a dihydroxybenzoic acid. Thus, a grained and anodized Al foil was coated with a solution containing cresol-HCOH novolak resin 6.3, 2,4-bis(1,2-naphthoquinone-2-diazido-5-sulfonyl)phenyl Bu ketone 1.2, Crystal Violet base 0.07, 1,2-naphthoquinone-2-diazide-4-sulfonic acid chloride 0.17, a maleate resin 0.25, ethylene glycol monomethyl ether Bu acetate 3:2 mixture 92.01 weight parts, dried to give 2.5 g/m² layer, imagewise exposed for 60 s under 5 kW metal halide lamp, developed with an aqueous solution containing Na metasilicate, Na₃PO₄, NaH₂PO₄ to provide a printing plate which provided 150,000 prints of excellent quality.

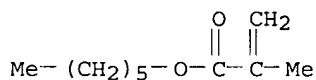
IT 25609-89-6 38719-16-3
 RL: USES (Uses)
 (photoimaging composition for printing plates and photoresists
 fabrication containing naphthoquinonediazidosulfonic acid ester of
 dihydroxyacylphenone or dihydroxybenzoic acid and)
 RN 25609-89-6 HCAPLUS
 CN 2-Butenoic acid, polymer with ethenyl acetate (9CI) (CA INDEX
 NAME)
 CM 1
 CRN 3724-65-0
 CMF C4 H6 O2



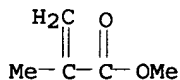
CM 2
 CRN 108-05-4
 CMF C4 H6 O2



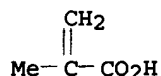
RN 38719-16-3 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with hexyl
 2-methyl-2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA
 INDEX NAME)
 CM 1
 CRN 142-09-6
 CMF C10 H18 O2



CM 2
 CRN 80-62-6
 CMF C5 H8 O2



CM 3
 CRN 79-41-4
 CMF C4 H6 O2



IC C07C161-06; G03C001-56
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 IT **Lithographic plates**
 (photosensitive composition for fabrication of, containing naphthoquinonediazidesulfonic acid ester)
 IT 9003-32-1 9016-83-5 17354-14-2 **25609-89-6**
 36451-09-9 **38719-16-3**
 RL: USES (Uses)
 (photoimaging composition for printing plates and photoresists fabrication containing naphthoquinonediazidosulfonic acid ester of dihydroxyacylphenone or dihydroxybenzoic acid and)

L64 ANSWER 21 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1983:63322 HCAPLUS
 DOCUMENT NUMBER: 98:63322
 TITLE: Photosensitive resin compositions for presensitized plates
 PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

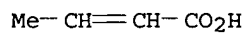
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 57063526	A2	19820417	JP 1980-138267	1980 1004
PRIORITY APPLN. INFO.:			JP 1980-138267	1980 1004

GI

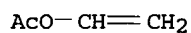
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT
 *

AB Photosensitive resin compns. contain a **water-insol.** resin, which is **soluble** in an **alkaline** solution or swells in an alkaline solution, and a 1,2-naphthoquinone-2-diazidesulfonic acid ester selected from I, II, III, IV, and V [R = 1,2-naphthoquinone-2-azidesulfonyl; R1, R2 = H, halo, C1-8 alkyl, alkoxy; R3, R4 = H, C1-10 alkyl, alkoxy, halo; R5, R6 = H, C1-10 alkyl; Z = CR7(CH2)xCO2(CH2)yO2C(CH2)xCR7, VI, VII; Z1 = CR8R9; Z2 = phenylene, naphthylene; Z3 = S, SO, CR8R9; Z4 = O(CH2)z, NH; Z5 = C, S, SO, H, alkylene; R7, R8, R9 = H, C1-4 alkyl; n = 3, 4; m = 1, 2, 4; x = 0-4; y = 2, 4, 6, 8, 10, 12, 14, 16; z = 0-20]. Thus, I (R = 1,2-naphthoquinone-2-azide-5-sulfonyl; R1 = H; R2 = Me at m-position with respect to Z group; Z = CMeCH2CO2CH2CH2O2CCH2CMe; n = 4) 10, a cresol novolak resin 35, methyl violet 0.05, and MeOCH2CH2OH 50 parts were mixed and coated on an Al support to give a presensitized **plate**, from which a **lithog. plate** having excellent

durability was prepared
 IT 25609-89-6
 RL: USES (Uses)
 (photosensitive resin compns. containing, for presensitized plates)
 RN 25609-89-6 HCAPLUS
 CN 2-Butenoic acid, polymer with ethenyl acetate (9CI) (CA INDEX
 NAME)
 CM 1
 CRN 3724-65-0
 CMF C4 H6 O2



CM 2
 CRN 108-05-4
 CMF C4 H6 O2



IC G03C001-52; G03C001-72; G03F007-08
 CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and
 Other Reprographic Processes)
 IT Lithographic plates
 (presensitized, photosensitive resin compns. for,
 naphthoquinonediazidesulfonate esters for)
 IT 8004-87-3 9016-83-5 17354-14-2 25609-89-6
 84242-38-6 84242-39-7 84242-40-0 84242-41-1 84242-42-2
 84242-43-3 84242-44-4 84242-45-5 84242-46-6 84242-47-7
 84242-48-8 84242-49-9
 RL: USES (Uses)
 (photosensitive resin compns. containing, for presensitized plates)

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